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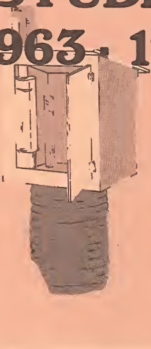
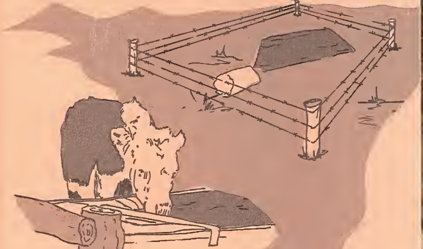


Precipitation Summary Application Programs



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Nevada Watershed Studies

1963 - 1980

United States Department of the Interior
Bureau of Land Management
Nevada State Office

September, 1983

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Winnemucca District	Ted Angle and Chris McAuliffe
Carson City District	Bashir Sulahria and Dave Schafersman
Ely District	Pete Porfido and Duane Ketterling
Las Vegas District	Mark Van Der Puy and Maggie Orr
Battle Mountain District	Mark O'Brien and Craig Westenburg

Table of Contents

		Page
1.0.	Summary	1-1
2.0.	Introduction	2-1
3.0.	Objectives of Nevada Watershed Studies	3-1
3.1.	Functional Supports	3-1
3.2.	NWS Data Application and Computer Program Development	3-1
3.3.	Future Goals	3-5
4.0.	Methodology	4-1
4.1.	Instrumentation Description	4-1
4.1.1.	Data Collections	4-1
4.1.1.1.	Field Data	4-1
4.1.1.2.	Data Storage	4-17
4.1.2.	Data Processes	4-17
4.2.	Applications	4-19
4.2.1.	Long-Term Mean and Frequency of Daily Precipitation	4-19
4.2.1.1.	Three Triggering Components	4-19
4.2.1.1.1.	Pacific Component	4-21
4.2.1.1.2.	Gulf Component	4-21
4.2.1.1.3.	Continental Component	4-22
4.2.1.2.	Monthly March of Precipitation	4-22
4.2.1.3.	Required Length of Record for Monthly March of Precipitation	4-22
4.2.1.4.	Computing Variability and Standard Deviation	4-23
4.2.1.5.	Computing the Frequency of 24-hour Precipitation	4-23
4.2.1.6.	Deficiency Index	4-24
4.2.1.7.	Dominant Vegetation Type	4-24
4.2.2.	Stockwater Application	4-25
4.2.2.1.	Water Requirement for Livestock and Wildlife	4-25
4.2.2.2.	Net Water Supply	4-25
4.2.2.3.	Annual Deficiency Index and Effective Annual Precipitation	4-25
4.2.2.4.	Catchment Area and Required Tank Size	4-28
4.2.2.5.	One-Year Water Balance Cycle	4-30
4.2.2.5.1.	Water Yield	4-30
4.2.2.5.2.	Water Demand	4-32
4.2.2.5.3.	Water Balance	4-32
4.2.2.6.	Three-Year Water Balance Cycle	4-33
4.2.2.6.1.	Water Yield in Catchment Apron	4-33

Table of Contents (cont.)

Page

4.2.2.6.2. Water Demand 4-34

4.2.2.6.3. Water Balance 4-34

4.2.2.6.4. Water Balance for Seasonal Consumptive Use 4-34

4.2.2.7. Reduced Standard Deviation 4-36

4.2.2.8. Decision Making and User Interface 4-36

4.2.2.8.1. Precipitation Variation 4-38

4.2.2.8.2. Water Demand Variation 4-38

4.2.2.8.3. Catchment Size Variation 4-38

4.2.2.8.4. Tank Volume Variation 4-41

5.0. Results and Discussions 5-1

5.1. Mean Monthly and Annual Precipitation Record 5-1

5.2. Precipitation Record in Chronological Order 5-4

5.2.1. Selection of Representative Rain Can for Watershed 5-6

5.2.2. Regional Precipitation Prediction 5-6

5.2.3. The Long-Term Trend/Cycle Analysis 5-29

5.3. Precipitation Characteristics 5-32

5.3.1. Precipitation Sources 5-32

5.3.2. Variability and Standard Deviation 5-32

5.3.3. Frequency of Daily Precipitation 5-34

5.3.4. Deficiency Index and Expected Dominant Vegetation Type 5-35

5.4. Catchment Size and Tank Volume for Stockwater Application 5-36

5.4.1. Catchment Area 5-36

5.4.2. Tank Size 5-36

Appendix 1 Glossary and Mathematical Symbols A-1

Appendix 2 Studies and Hydrology - Computation of Mean Annual Rainfall and Frequency of Daily Rains A-3

Appendix 3 Studies and Hydrology - "PRECIP" Computer Program A-49

Appendix 4 Estimated Annual Precipitation of Proposed Reservoirs in Winnemucca District, Nevada A-65

Appendix 5 User's Manual for AQUATANK A-66

Appendix 6 Decision Making by AQUATANK Computer Program A-67

References R-1

1.0 Summary

This report presents 16-18 years of precipitation records gathered by the Bureau of Land Management's Nevada Watershed Studies. The monthly and annual precipitation amounts are presented in Tables A and B.

From a statistical study by the late John G. Houghton, titled "Characteristics of Rainfall in the Great Basin", various statistical parameters have been quantified and calculated in a simulation computer program. The program allows estimation of monthly and annual precipitation amounts and frequency of daily rains to be estimated at any ungaged area in Nevada as presented in Table C.

The second Bureau of Land Management (BLM) developed computer program "AQUATANK" is explained and the results are presented in Table D. This program, utilizing Nevada Water Studies (NWS) precipitation records and other records as available, will calculate the required minimum area of a catchment apron and volume of required water storage to provide livestock water. The economic benefit of this program is obvious in that the facilities are expensive. The program (AQUATANK) will prevent over or under design of the apron area and tank storage volume.

Another computer program is in progress that involves the estimation of future forage production based on pheonology data collected by BLM and correlation with the past year's precipitation record. This will be presented in future reports.

Flood flows and overland flows resulting from high intensity rain storms and snowmelt have also been recorded in all 12 of the study areas. An analysis of these events is not included in this report; however, it will be included in future reports.

2.0 Introduction

The original purpose of the Nevada Watershed Studies (NWS) was to provide information on runoff and overland flows resulting from precipitation in the form of rain and snow. The primary use of this information was intended to be hydrologic design of water control structures. Simultaneously, the application of the same precipitation data to enhance forage production was identified. The NWS started data collection in 1962 to provide reliable information on precipitation and runoff unavailable for most of Nevada, particularly at the higher elevations.

The NWS consists of 12 watersheds, two in each of Nevada BLM's six districts. The watershed name, code and related parameters are listed in Table 2-1. The related parameters include location, elevation, precipitation, drainage basin, vegetation, and soils. Each of the 12 watersheds, ranging in size from 23 to 213 sq. miles, were chosen as representative watersheds. A representative watershed is defined as one that has been chosen and instrumented to represent a broad area, as an alternative to making measurements in all basins of a comparatively homogeneous region.

The NWS have as a general objective the development of procedures for predicting and evaluating effects of alternative management practices on the soil and water resources in other basins within the same hydrologic province. In an attempt to reach the stated objective, in addition to data collection of precipitation and runoff, studies of soils and vegetation were completed for each of the 12 watersheds in cooperation with University of Nevada, Reno (UNR). A study of infiltration and runoff was also completed for a number of soil-vegetation groups common to most of the 12 study areas.

BLM is converting all historic data collected from manually maintained records of NWS to computer files on BLM's 66/80 Honeywell Computer. To date all precipitation records are in the computer file. Input of records for runoff and overland flows is in progress.

The Bureau's traditional field instrumentation is quite labor intensive, and because of this BLM is investigating alternative forms of recording field data. The advances in computer electronic technology have made possible the development of highly reliable and inexpensive alternatives. Two such products are:

1. Electronic Data Storage Modules.

2. Electronic Data Sensors.

Table 2-1, Watershed Name, Code and Related Parameters

Watershed and District Names	Watershed Code *1	Location Lat (°N) Long (°W)	Elevation Ranges (feet)	Annual Precipitation (inches) *2	Drainage Basin	Vegetation	Soils
Rock Springs, Elko	1-1	41.82 114.38	5400-7600	11-6	South Thousand Spring Creek	Sagebrush, pinyon-juniper (PJ)	Shallow soil (SS) in mountain Deep fine textured soil (DFS) in valley
Crane Springs, Elko	1-2	40.53 115.85	5200-6800	11-14	NW to Humbolt River	Salt desert shrub and juniper	Aridsols w/Entisols and Mollisols
Crowley Creek, Winnemucca	2-1	41.62 118.05	4500-7500	10-15	SW to Quinn River	Grass and Sagebrush	SS in ridge. DFS in valley.
Cow Creek, Winnemucca	2-2	40.72 118.75	4300-7000	7-10	NW to Black Rock Desert	Northern and salt desert shrub, and juniper	Aridisols w/Entisols and Mollisols
Eastgate, Carson City	3-1	39.32 117.87	4900-9000	8-13	West to Fairview Valley	Sagebrush, greasewood, pinyon-juniper	SS in ridge. DFS in valley
Churchill Canyon, Carson City	3-2	39.03 119.28	4300-7000	6-13	South to Walker River	Sagebrush, pinyon-juniper	SS in ridge. DFS in valley.
Duckwater, Ely	4-1	39.12 115.70	5800-7300	8-12	South to Railroad Valley	Sagebrush, shadscale, and pinyon-juniper	Aridisols and Entisols
Steptoe, Ely	4-2	38.83 114.78	7100-9000	12-15	North to Steptoe Valley	Sagebrush, bluegrass, crested wheatgrass & pinyonjuniper	Aridisols and Mollisols

Table 2-1, Watershed Name, Code and Related Parameters

Watershed and District Names	Watershed Code *1	Location Lat (°N) Long (°W)	Elevation Ranges (feet)	Annual Precipitation (inches) *2	Drainage Basin	Vegetation	Soils
Mathews Canyon Las Vegas	5-1	37.55 114.12	5600-5900	12-17	NW to Meadow Wash	Sagebrush, rabbitbrush, Cheatgrass and PJ	Aridisols, Mollisols, and Entisols
Pine Canyon Las Vegas	5-2	37.50 114.20	5700-6700	12-19	NW to Meadow Wash	Sagebrush, rabbitbrush, PJ, and coniferous forest	Aridisols, Mollisols, and Entisols
Mill Creek Battle Mountain	6-1	40.47 116.88	5100-8000	10-16	NW to Reese River	Northern/Salt desert shrub, and PJ	Aridisols, Mollisols, and Entisols
Coils Creek Battle Mountain	6-2	39.75 116.67	6500-8400	9-13	South to Kobeh Valley	Northern desert shrub, and PJ	Aridisols, Entisols, and Mollisols

*1 Watershed codes are used throughout text and appendixes

*2 Annual precipitation is verified through Table A and Table B

3.0. Objectives of Nevada Watershed Studies

The Nevada Watershed Studies (NWS) were established in 1962 by the Nevada BLM State Director to gather detailed hydrologic information relative to precipitation and runoff patterns in select sites in Nevada. The studies were conducted by the Nevada BLM engineering staff and later assisted by district watershed personel. There are 12 watershed areas instrumented. Supplemental soil and vegetation studies were completed under contract by the University of Nevada, Reno, between 1968 and 1971, for each of the 12 watersheds. The watersheds are representative areas chosen to represent much broader zones or regions, as an alternative to making measurements in all basins of a comparatively homogenous region.

The objectives of the NWS are to furnish reliable hydrometeorological data and support to BLM's activities, i.e., range improvements, grazing environmental impact studies, etc. Such hydrometeorological data and analyses are not otherwise available on BLM-administered public lands in Nevada. NWS instrumentation provides otherwise unavailable data for generally higher elevation stations than are instrumented by the National Oceanic and Atmospheric Administration (NOAA). NWS also feature dense instrumentation of small geographic areas that enable interpretations of effects of location, elevation, etc. NOAA data is used, where available, as base data and for correlation purposes. The Soil Conservation Service (SCS) SNOWTEL SYSTEM in Nevada is another important hydrologic data source.

3.1. Functional Supports

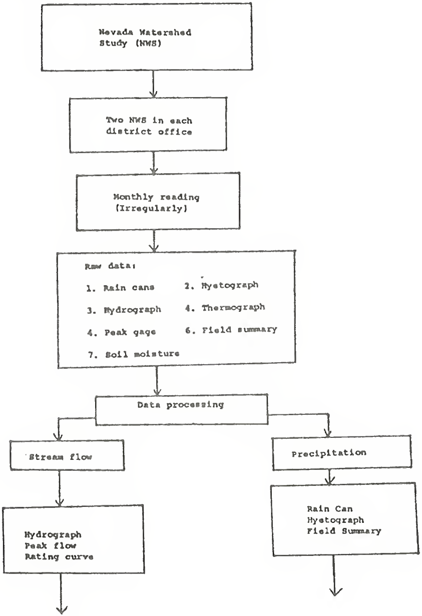
Table 3-1 is a flow chart showing how NWS data are manipulated and the general categories of ultimate use. The application of hydrologic data to enhance environment quality is BLM's major commitment in the management of the public lands. During the past year, two application computer programs have been developed utilizing NWS data. These programs will provide direct support to the BLM's resource management programs.

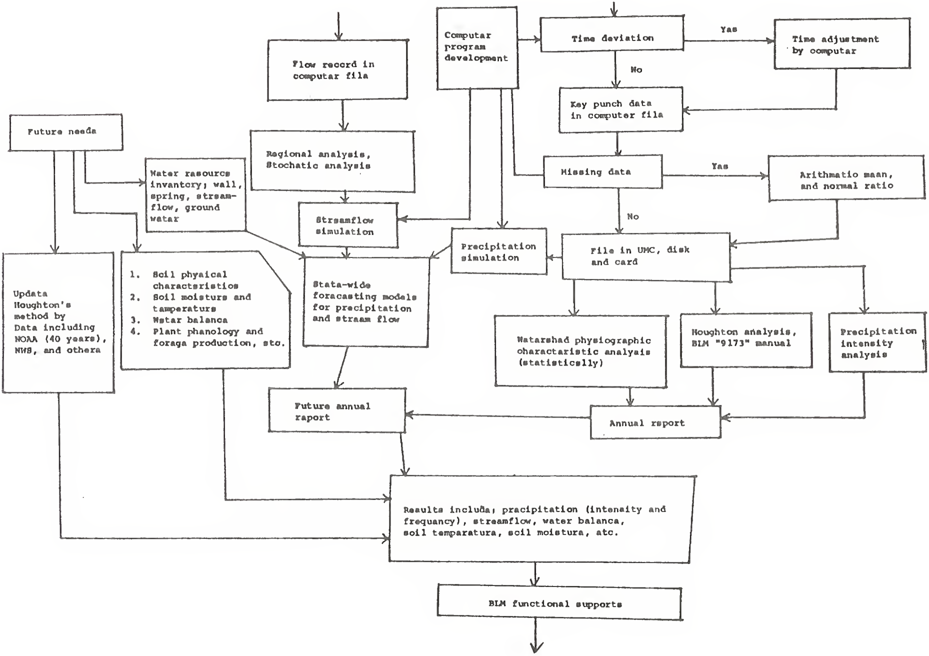
3.2. NWS Data Application and Computer Program Development

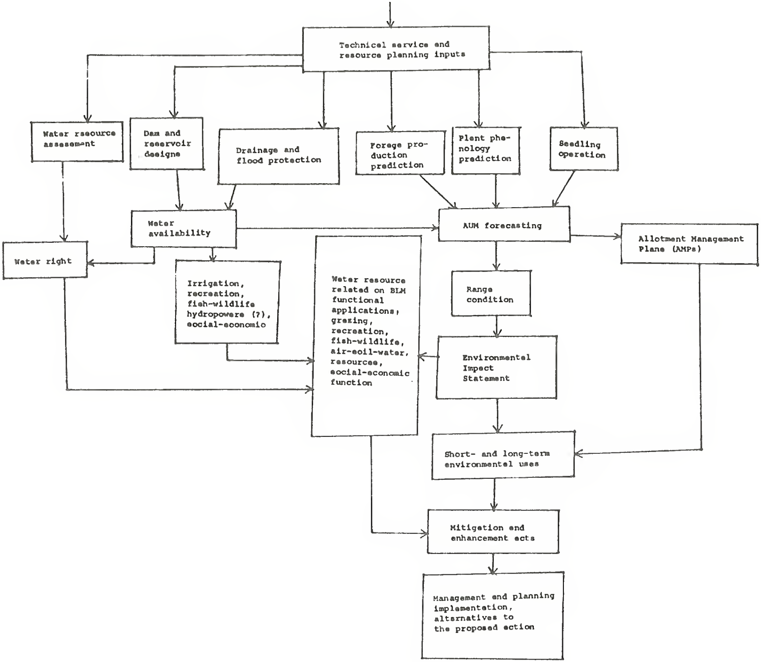
The first program (HJTNPG) is based on precipitation determined from procedures outlined in Nevada BLM Manual Supplement 9173, "Frequency of Daily Rains and Characteristics of Mean Annual Rainfall" to predict mean monthly precipitation amounts. Using this precipitation information in combination with district functional requirements for livestock water, "AQUATANK" the second program will calculate the area of a catchment apron required and select the size of a water storage tank necessary to fulfill the given functional requirements, i.e., animal numbers and season of use.

High regression correlation between phenology records and NWS precipitation data have been determined. Hence, Forage Production Index, the third NWS application computer program, is being scoped

Table 3-1; Objectives of Nevada State BLM Watershed Study




Flow record in computer file
Computer program development
Time deviation
Yes
Time adjustment by computer
No
Key punch data in computer file
Future needs
Regional analysis, Stochastic analysis
Water resource inventory; well, spring, streamflow, ground water
Missing data
Yes
Arithmatic mean, and normal ratio
Streamflow simulation
No
Precipitation simulation
File in UMC, disk and card
Update Houghton's method by Data including NOAA (40 years), NWS, and others
1. Soil physical characteristics
2. Soil moisture and temperature
3. Water balance
4. Plant phenology and forage production, etc.
State-wide forecasting models for precipitation and stream flow
Watershed physiographic characteristic analysis (statisticslly)
Houghton analysis, BLM "9173" manual
Precipitation intensity analysis
Future annual report
Annual report
Results include; precipitation (intensity and frequency), streamflow, water balance, soil temperature, soil moisture, etc.
BLM functional supports


Technical service and resource planning inputs
Water resource assessment
Dam and reservoir designs
Drainage and flood protection
Forage production prediction
Plant phenology prediction
Seedling operation
Water availability
AUM forecasting
Allotment Management Plans (AMPs)
Water right
Irrigation, recreation, fish-wildlife hydropowers (?), social-economic
Water resource related on BLM functional applications, grazing, recreation, fish-wildlife, air-soil-water, resources, social-economic function
Range condition
Environmental Impact Statement
Short- and long-term environmental uses
Mitigation and enhancement acts
Management and planning implementation, alternatives to the proposed action

and the development is planned in the near future. This third program is designed to predict forage production for the oncoming growing season. Input variables will be precipitation for the previous year, from which soil moisture is estimated, and the phenology of range plants.

3.3. Future Goals

The future goals of NWS are the development of other computer application programs and refinements of current programs that relate hydrologic data and specific BLM multiple use plans and objectives. Such programs will be designed for use and access by BLM's District Office staffs.

4.0. Methodology

The Nevada Watershed Studies (NWS) include 12 small watersheds throughout BLM-administered public land in Nevada. As shown in Figure 4-1, each district has two watershed studies. The complexity of the geophysical characteristics of all watersheds is shown in Figure 4-2. The watersheds were subjectively selected to be representatives of all lands within Nevada with the exception of southwestern portion of Nevada where arid desert sites are predominent. The drainage area of the watersheds range in size from 23 square miles for Mill Creek in the Battle Mountain District to 213 square miles for Eastgate in the Carson City District.

4.1. Instrumentation Description

Rain cans, stream peak flow gages, chart recording tipping buckets and stream gages were installed in all watersheds as shown in Figures 4-4 through 4-15. Table 4-1 shows the numbers of instruments at the date data collection started. In 1978, after technical analysis, some rain cans in various watersheds were deleted to reduce the monitoring workload. As a result, the density of precipitation gages has been reduced from an average of 0.34 gages/square mile to 0.25 gages/square mile. One NWS objective is the eventual deletion of all rain cans with full reliance upon BLM's recording stations to minimize high labor cost.

4.1.1. Data Collections

The Engineering Branch of the Division of Operations in BLM's Nevada State Office (NSO) provides the annual instrumentation maintenance service each summer with District assistance. District Watershed personel collect monthly data except during some winter months when the sites are inaccessible. However, the total accumulations are collected as soon as the sites are accessible. Precipitation measurements are made of the vertical depth of the liquid water equivalent of all forms of precipitation falling on a horizontal surface. Until July 1981 the precipitation records were forwarded to NSO by mail and then entered into the computer files. Since that time through the "PRECIP" computer program the monthly totals are entered into the computer file directly by District Offices. PRECIP permits creation of computer data files which are then the basis of detailed hydrological and statistical analyses.

4.1.1.1. Field Data

Field data include precipitation amount in each rain can, automatic tipping bucket record, flood-hydrographs, depth at peak gages, soil moisture and water and air temperatures.

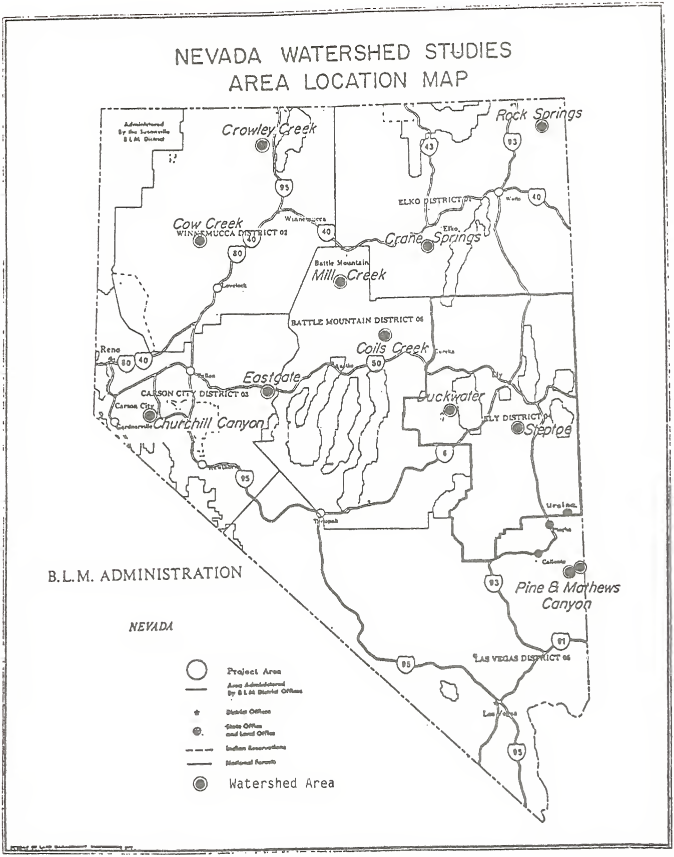


Figure 4-1: Nevada Watershed Studies Area Location Map

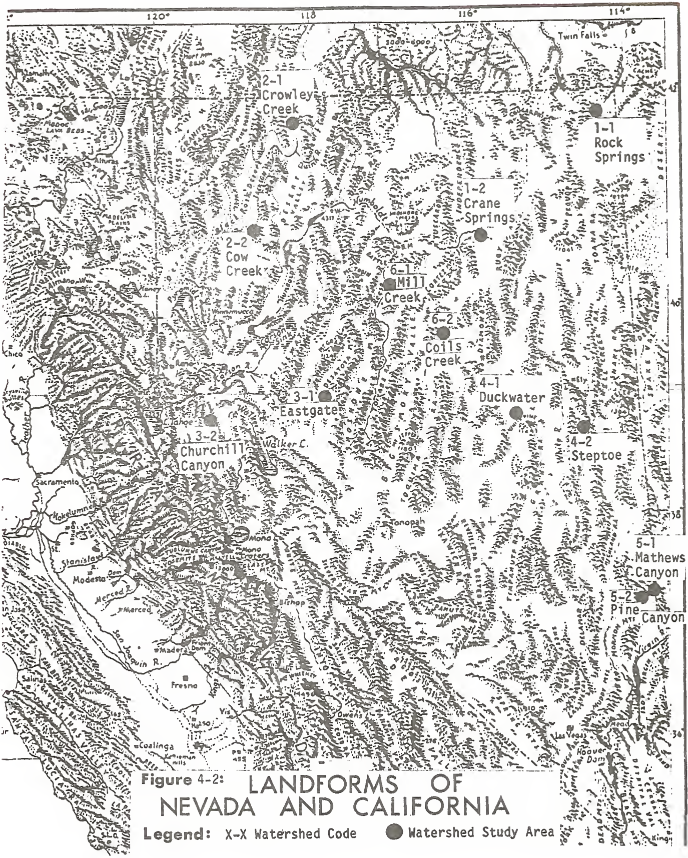


Figure 4-2: LANDFORMS OF NEVADA AND CALIFORNIA

Legend: X-X Watershed Code ● Watershed Study Area

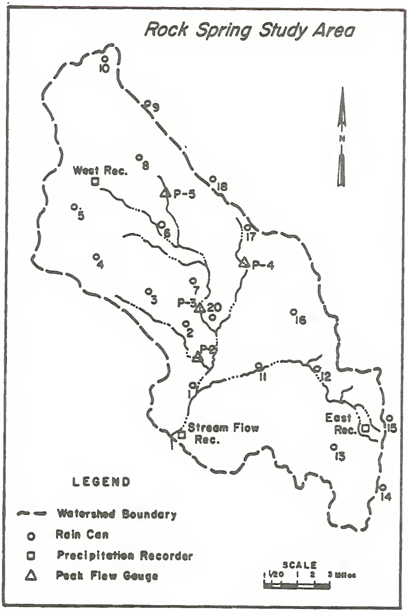


Figure 4-3: Rock Springs Watershed, Elko District

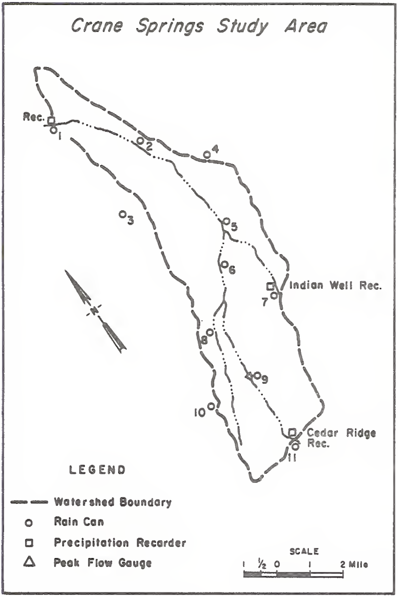


Figure 4-4: Crane Springs Watershed, Elko District

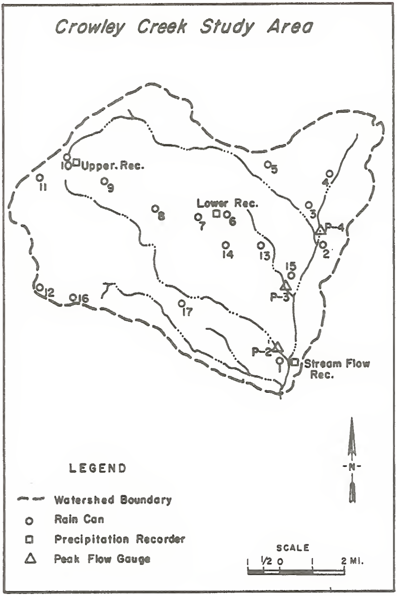


Figure 4-5: Crowley Creek Watershed, Winnemucca District

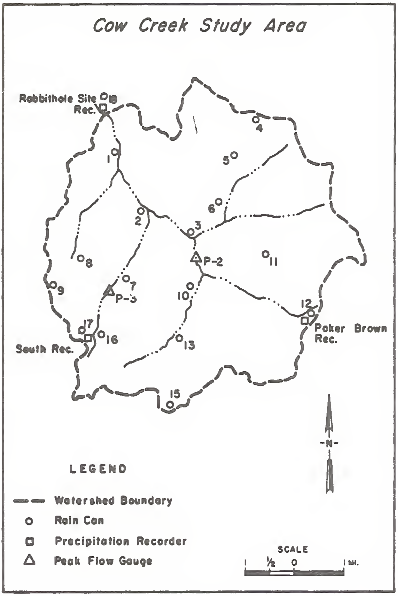


Figure 4-6: Cow Creek Watershed, Winnemucca District

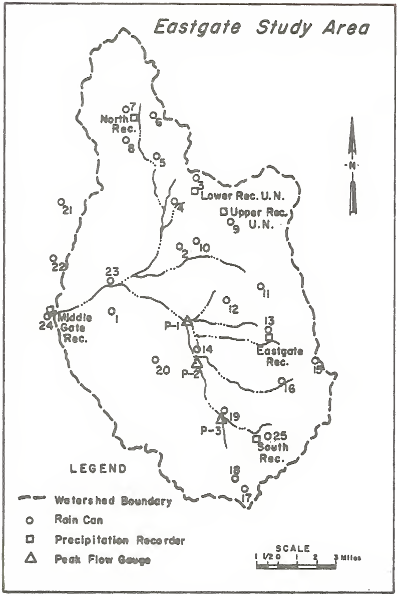


Figure 4-7: Eastgate Watershed, Carson City District

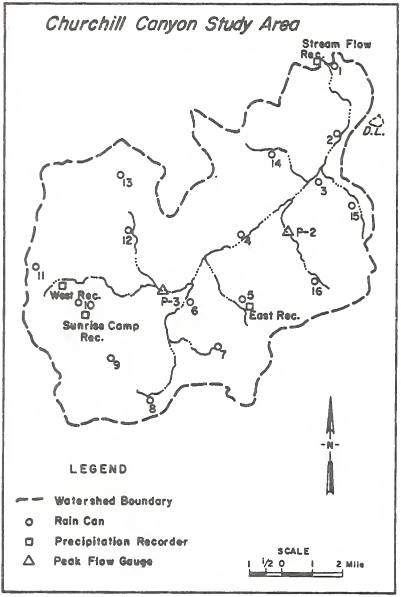


Figure 4-8: Churchill Canyon Watershed, Carson City District

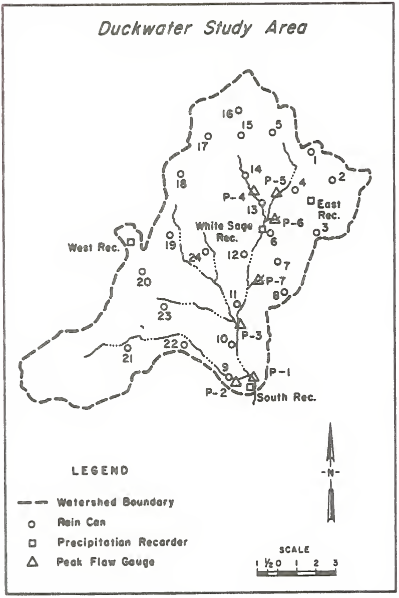


Figure 4-9: Duckwater Watershed, Ely District

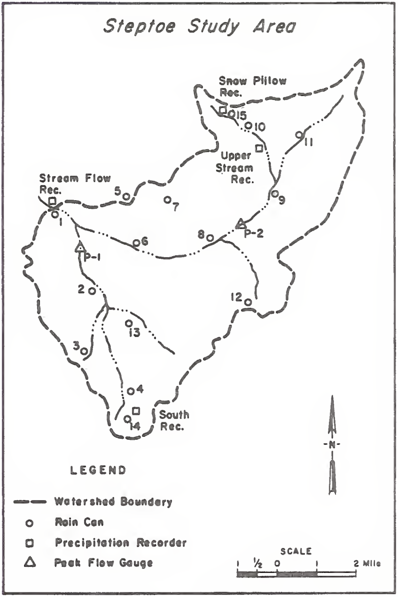


Figure 4-10: Steptoe Watershed, Ely District

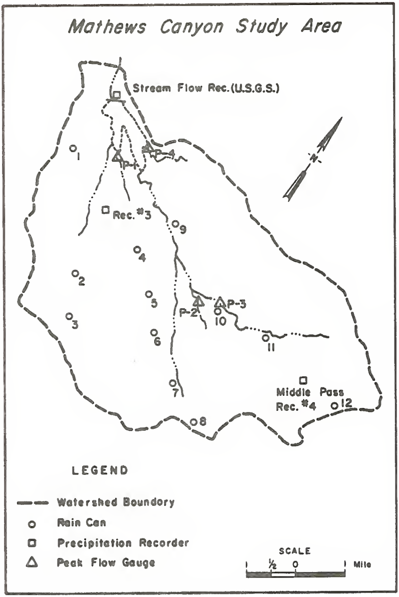


Figure 4-11: Mathews Canyon Watershed, Las Vegas District

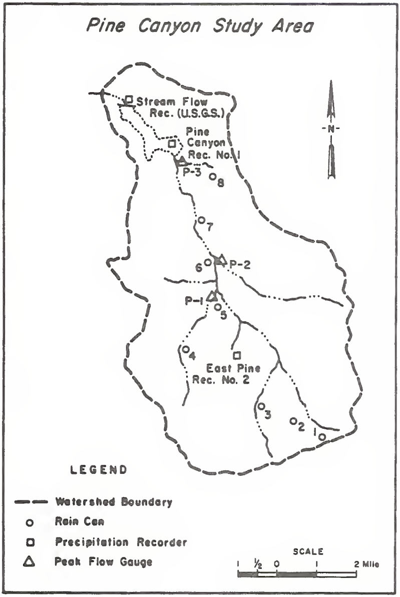


Figure 4-12: Pine Canyon Watershed, Las Vegas District

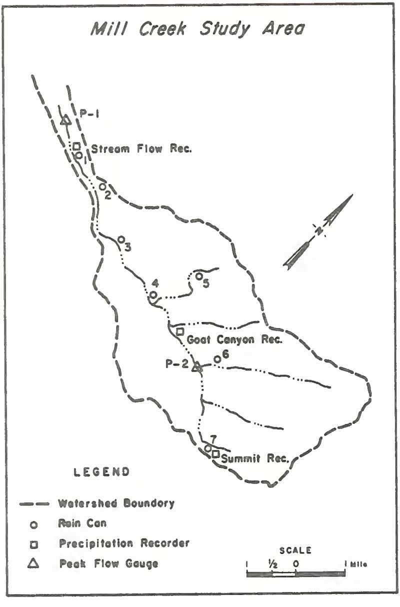


Figure 4-13: Mill Creek Watershed, Battle Mountain District

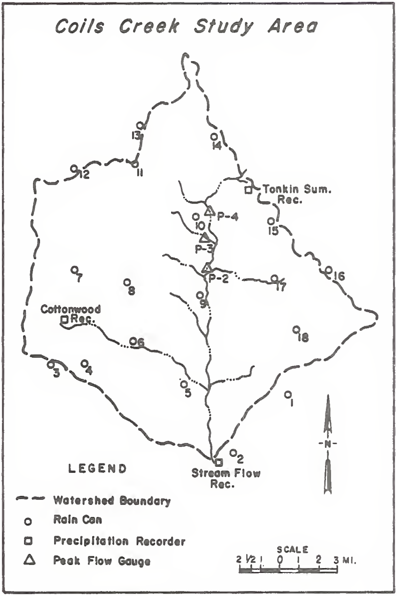


Figure 4-14: Coils Creek Watershed, Battle Mountain District

Table 4-1, Nevada Watershed Studies (NWS) Hydrologic Site Codes, Drainage Areas, Instrumentation Types and Their Densities

District Name	Watershed Name	Watershed Code*	Date Data Collection Started	Peak Gage Stations	Stream Gages Stations	Drainage Area (Mile^2)	Precipitation Gages: Recording Stations	Precipitation Gages: Non-Recording Stations (Cans) Pre-1978**	Precipitation Gages: Non-Recording Stations (Cans) Post-1978**	Density of Precipitation Gages (gage/mile^2) Pre-1978**	Density of Precipitation Gages (gage/mile^2) Post-1978**
Elko	Rock Springs	1-1	6/63	5	1	77	3	23	14	0.34	0.22
Elko	Crane Springs	1-2	7/64	1	1	30	3	11	7	0.47	0.43
Winnemucca	Crowley Creek	2-1	7/62	4	1	56	3	17	10	0.36	0.23
Winnemucca	Cow Creek	2-2	10/64	3	1	115	3	16	14	0.17	0.15
Carson City	Eastgate	3-1	2/63	4	1	213	4	25	16	0.14	0.09
Carson City	Churchill Canyon	3-2	9/63	3	1	73	3	16	10	0.26	0.18
Ely	Duckwater	4-1	1/63	7	2	96	4	24	15	0.29	0.20
Ely	Steptoe	4-2	11/63	4	1	45	4	15	11	0.42	0.33
Las Vegas	Mathews Canyon	5-1	8/62	3	1	36	3	12	6	0.42	0.25
Las Vegas	Pine Canyon	5-2	8/62	2	1	32	2	9	8	0.34	0.31
Battle Mountain	Mill Creek	6-1	6/64	4	1	23	3	7	6	0.43	0.39
Battle Mountain	Coils Creek	6-2	7/63	2	1	50	3	20	12	0.46	0.30
									Mean =	0.34	0.25

* District code and watershed code are used in Appendix A,B,C, and D.

**Numbers of non-recording stations were reduced in 1978.

Leopold-Steven Recorder's record contain hyetographs of precipitation for all recording stations, and are also used to record hydrographs of run-off events from flows within the watershed. Thermographs have also been installed in Leopold-Steven Recorders for special areas. Soil moisture blocks and thermometers have been installed in all recording stations. Soil moisture data have been recorded at two depths, six inches and one foot, beginning in 1978. These single readings are made manually on a monthly basis in conjunction with the general data collected. Thermometers to record maximum, minimum, and current air temperatures were installed in the summer of 1981. These are not recording devices and data is noted monthly. Some select sites are fitted with continuous chart recording ambient air temperature systems and one site has continuous soil temperature collection.

4.1.1.2. Data Storage

The precipitation depths in between field visits for all rain can sites have been entered into computer storage. Currently, the "PRECIP" computer program has allowed District's Watershed representatives to directly record rain can numbers, recording date, depth in inches, and remarks.

4.1.2. Data Processes

Precipitation data from automatic recorders are used to divide cumulative monthly and investigation field reading into the proper month of occurence. When data from automatic recorders are inadequate, NOAA's data are used.

Normal ratio method and arithmetic average methods have been used to calculate missing data. If the normal precipitation amount of three adjacent stations (N_i) is within 10 percent of the normal precipitation amount of the missing data station (N_m), a simple arithmetic average method is used. When P_i is used to represent the precipitation amount of i-th stations, then the precipitation amount of the missing data station (P_m) is calculated by:

$$P_m = (P_1 + P_2 + P_3)/3 \text{ ---------------------(4-1)}$$

$$\text{or } \; P_m = \overset{n}{\underset{i=1}{}} P_i/n \text{ ------------------------------(4-2)}$$

If the N_i is not within 10 percent of N_m, then the precipitation amount of the missing data station (P_m) is calculated by normal ratio method as:

$$P_m = (\frac{P_1}{N_1} + \frac{P_2}{N_2} + \frac{P_3}{N_3})\ \frac{N_m}{3} \quad \text{-------------------(4-3)}$$

$$\text{or}\quad P_m = (\ {}_{i=1}^{n}\ (P_i/N_i))\ \frac{N_m}{n} \quad \text{--------------------(4-4)}$$

Computer programs have been developed to calculate Table A and Table B which are tabulated in the Appendix. Monthly, the annual total and the monthly mean of precipitation amount were calculated for each rain can as shown in Table B. The data in Table B were then tabulated in Table A which summarized the mean monthly and annual precipitation record for each watershed.

Mean monthly precipitation data were used to analyze long-term mean and frequency of precipitation (Table C) through the Houghton Method which was developed by the late John G. Houghton of Desert Research Institute, University of Nevada, Reno. The program requires four types of input data: mean monthly precipitation, percentage of the Pacific Component (FP), percentage of Gulf Component (FG), and the Standard Continental Curve (CI) number. These are used to calculate long-term mean monthly precipitation (SI), frequency of 24-hour precipitation, deficiency index, the expected dominant vegetation type, and seasonal and annual precipitation variability. The Houghton Method was computerized by NSO in FY-82. It is anticipated that Districts may access this program directly in the near future.

4.2. Applications

Two applications, long-term mean and frequency of daily precipitation, (HJTNPG) and (AQUATANK) stockwater application have been developed.

4.2.1. Long-Term Mean and Frequency of Daily Precipitation

In an arid and semi-arid area such as Nevada, precipitation is notoriously variable from year to year. To obtain a reliable mean annual precipitation and frequencies of various intensities, a statistical method of estimating long-term precipitation regime for Nevada was compiled in BLM manual release 9173.4 by J.H. Trimmer, Chief of Engineering Branch, NSO of BLM. Readers are referred to manual release 9173.4 to understand the calculation procedures. For detailed explanation of methodological development of 9173.4, readers are also referred to "Characteristics of Rainfall in the Great Basin" which was written by the late J.G. Houghton, Desert Research Institute, University of Nevada, Reno. To examine triggering components, variability, standard deviation, frequency of daily precipitation, deficiency index, and expected dominant vegetation type, the following sections are used to briefly describe the computation procedures. Rain can 12 of the Rock Springs Watershed of Elko District in Table C-1-1 is used to demonstrate all numerical computations.

4.2.1.1. Three Triggering Components

Two moisture sources, the Pacific Ocean and the Gulf of Mexico, are the primary sources of precipitation for Nevada. However, it has been shown that in fact there are three triggering components affecting the precipitation of Nevada: 1) the Pacific Component, which supplies moisture mainly for winter and spring cyclonic storms, 2) the Gulf Component, which provides moisture for convective showers during summer, and 3) the Continental Component, which recondenses the evaporated moisture from Nevada itself, particularly the cyclones during cold and warm transition seasons.

Before the computation of the Pacific Component, precipitation data from Table B is entered as monthly observed rainfall, OBR_i. The 30-day monthly rainfall, $R30_i$, is calculated by the equation as:

$$R30_i = OBR_i * MCC_i \text{ ---------------------(4-5)}$$

Where MCC_i is the monthly correction constant. For example, in 31-day months, the MCC equals 30/31 or 0.97.

To demonstrate calculation procedures, Table 4-1 (or Table C-1-1) is used to explain the equations. A box with an "a" in the right upper corner of Table 4-1 is used to illustrate the calculation for January's R30. The $R30_i$ for January is:

$$R30_i = 0.93 \times 0.97 = 0.90$$

```
TABLE 4-1;   ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             RUCK SPRINGS WATERSHED, ELKO DISTRICT, NEVADA.
                   RAIN CAN #: 12     LOCATION: LAT.= 41° 49' N.
                                                LON.=114° 23' W.
                                      ELEVATION:  5900 FT.
             JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
-----------------------------------------------------------------------------
OBSERVED P   0.93 0.67 0.71 0.94 1.75 1.94 1.03 1.06 0.92 1.04 0.98 0.76 12.73
30-DAY P     0.90[a] 0.72 0.69 0.91 1.70 1.94 1.00 1.03 0.92 1.01 0.98 0.74 12.56
             FP=0.78 AP=0.83 MP=0.65
  PI         0.65[b] 0.59 0.45 0.24 0.12 0.04 0.01 0.01 0.04 0.19 0.35 0.60  3.29
             FG=0.81 AG=1.10 MG=0.89
  [illegible] 0.   0.   0.   0.   0.   0.   0.75 0.89 0.51 0.   0.   0.    2.15
 [illegible] 0.19 0.32 0.45 1.07 1.55 1.37 0.11 0.01 0.35 0.85 0.61 0.24  7.12
  SI         0.84 0.91 0.90 1.31 1.67 1.41 0.87 0.91 0.90 1.05 0.95 0.84 12.56
CALENDAR SI  0.87 0.85 0.93 1.31 1.72 1.41 0.89 0.94 0.90 1.08 0.95 0.87 12.72
    DOMINANCE:  KD=0.12,   PI=26.22%,  SI=17.09%,  CI=56.69%.
  Y90%= 7.31YEARS,   Y10%= 10.20YEARS,   YB(GOOD)= 8.75YEARS.
VARIABILITY (VAR.) & STANDARD DEVIATION(S. D.)
  VAR.       0.91 0.88 0.86 0.71 0.65 0.71 0.90 0.88 0.88 0.70 0.64 0.62  0.19
  S. D.      0.77 0.57 0.79 0.96 1.09 1.00 0.78 0.80 0.79 0.74 0.61 0.52  2.43
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS> .01"   7.17 7.16 [illegible] 7.2411.06 9.15 6.41 7.72 7.58 6.67 5.76 6.37 90.33
DAYS> .10"   [illegible] [illegible] [illegible] 3.77 4.40 5.33 2.94 3.91 3.82 3.52 3.29 3.52 48.97
[illegible]  [illegible] [illegible] [illegible] [illegible] 1.31 2.62 1.44 1.75 1.89 1.90 1.88 1.01 20.61
[illegible]  [illegible] [illegible] 0.27 0.38 1.15 1.29 0.98 0.84 0.63 0.87 0.82 0.40  8.75
[illegible]  0.12 0.13 0.10 0.21 0.22 0.28 0.20 0.15 0.15 0.25 0.17 0.09  2.07
% >0.25      16.9[c] 14.6 16.9 27.4 [illegible] 28.6 22.7 [illegible] 24.9 28.4 32.7 15.8 22.81
[illegible]  [illegible] [illegible] 1.4 1.9 3.1 3.0 3.1 [illegible] 2.0 3.4 3.0 1.5 2.30
[illegible]
             0.36 0.35 0.34 0.31 0.24 0.28 0.37 0.34 0.34 0.32 0.33 0.31 0.160
EXPECTED DOMINANT VEGETATION TYPE: PJ, SB and GW
-----------------------------------------------------------------------------
```

4.2.1.1.1. Pacific Component

Using the latitudinal and longitudinal geodetic coordinates for a rain can station, the percentage of winter precipitation arising from the Pacific Component, FP, is obtained from Illustration 27 of Manual 9173.4. The midwinter magnitude of Pacific precipitation, MP, at the station is computed by the equation:

$$MP = FP * AP \text{ -------------------------} (4\text{-}6)$$

Where AP, the expected amount of midwinter precipitation, is calculated as:

$$AP = 0.354(R30_1 + R30_2 + R30_{12}) \text{ -------} (4\text{-}7)$$

With $R30_1 = 0.90$, $R30_2 = 0.72$, and $R30_{12} = 0.74$, AP equals 0.83. MP for rain can 12 at Rock Springs of the Elko District is then equal to 0.65 inches as shown in box b. The monthly precipitation of Pacific Component, P_i, is computed into a set of 12 monthly values by the equation:

$$P_i = MP * DPS_i \text{ ------------------------} (4\text{-}8)$$

Where DPS_i is defined as decimal values of standard Pacific curve and is expressed as the values of DPS_i $(i = 1,12)$ = 1.000, 0.901, 0.690, 0.366, 0.183, 0.067, 0.015, 0.015, 0.067, 0.296, 0.536, and 0.925.

4.2.1.1.2. Gulf Component

The Gulf component, G_i, is computed by midsummer magnitude of Gulf precipitation, MG, and decimal values of standard Gulf curve, DGS_i, with an equation as:

$$G_i = MG * DGS_i \text{ ------------------------} (4\text{-}9)$$

Where MG is calculated by the percentage of midsummer precipitation arising from the Gulf component, FG, and the expected amount of midsummer precipitation, AG:

$$MG = FG * AG \text{ -------------------------} (4\text{-}10)$$

Using latitudinal and longitudinal values of the site, FG is interpreted as 81 percent for rain can 12 of Rock Spring Watershed from Illustration 28 of Manual 9173.4. The AG in equation 4-10 is only calculated by observed monthly precipitation for July (R_7) and August (R_8) as:

$$AG = 0.542\ (R30_7 + R30_8) \text{ --------------} (4\text{-}11)$$

or

$$AG = 0.542\ (1.00 + 1.03) = 1.10$$

The decimal values of standard Gulf curve are given for the months of July, August, and September and is expressed as $DGS_i(i=7,9) = 0.844, 1.000,$ and 0.568.

4.2.1.1.3. Continental Component

The continental component, C_i, is computed by the sum of the continental remainders, SCR, and the decimal values of the standard continental curve, $DSC_i(i=1,12)$, as:

$$C_i = SCR * DCS_i \text{ ----------------------}(4\text{-}12)$$

Where SCR is calculated by substructing the sum of 30-day precipitation, S30P, from the summation of the sum of the Pacific Component, SPC, and the sum of the Gulf Component; SGC, as:

$$SCR = S30P - (SPC + SGC) \text{ -------------}(4\text{-}13)$$

or

$$SCR = 12.56 - (3.29 + 2.15) = 7.12$$

Using the latitudinal and longitudinal coordinates of the station, the continental curve is interpreted as curve C5 from illustration 29 of Manual 9173.4. The decimal values of the standard continental curve, DSCi, is obtained from the respective curve number of Table 3 of Manual 9173.4. For curve C5, the DSC_i $(i=1,12)$ equal 0.027, 0.045, 0.063, 0.150, 0.218, 0.192, 0.015, 0.002, 0.049, 0.120, 0.085, and 0.034, respectively.

4.2.1.2. Monthly March of Precipitation

The unadjusted monthly march of precipitation, S_i, is computed as the sum of the three components as:

$$S_i = P_i + G_i + C_i \text{ -------------------}(4\text{-}14)$$

The calendar march of precipitation, CS_i, is converted from the S_i of equal months of 30 days to values representing months of calendar length. In this context "March", as explained in Houghton's Method, means progression or the seasonal or monthly precipitation occurrence curve.

4.2.1.3. Required Length of Record for Monthly March of Precipitation

To determine the required length of record for good estimation of the monthly march of precipitation, YB, the measure of dominance, KD, is calculated by the sum of three components as:

$$KD = \frac{(\quad Pi)^2 + (\quad Gi)^2 + (\quad Ci)^2}{(\quad Si)^2} \text{ ----(4-15)}$$

or

$$KD = ((3.29)^2 + (2.15)^2 + (7.12)^2)/(12.56)^2 = 0.42$$

Using the calculated KD value, $Y_{0.90}$, can be graphically interprated from Illustration 30, and $Y_{0.10}$ can be obtained by similar method from Illustration 33. The YB is then computed as:

$$YB = (Y_{0.90} + Y_{0.10})/2 \text{ -------------(4-16)}$$

4.2.1.4. Computing Variability and Standard Deviation

The monthly variability, VAR_i, is graphically interpreted by utilizing the latitudinal value and the monthly and annual march of precipitation values. From Illustration 31, four seasonal rainfall variability curves - - winter (December, January, and February), cold transition (March, April, and November), warm transition (May, June, and October), and summer, (July through September) - - are used to interpret the monthly variability. Illustration 32 is only used to interpret annual variability.

The standard deviation (in inches), SD_i, is computed by multiplying the monthly variability, VAR_i, with the monthly or annual marched precipitation, CS_i, as:

$$SD_i = VAR_i * CS_i \text{ -------------------(4-17)}$$

4.2.1.5. Computing the Frequency of 24-hour Precipitation

Fifteen graphs, Illustrations 34 through 48 in 9173.4, are used to determine the frequency of 24-hour precipitation. Given the latitudinal value and monthly march precipitation, the number of days with precipitation equal to or exceeding 0.01, 0.10, 0.25, 0.50, and 1.00 inches can be determined by calendar months. The annual number of days with precipitation at each intensity is computed by the sum of the 12 monthly frequencies.

Percentages for two intensities, >=0.25, and >=1.00 inch per day, are calculated using the respective days divided by the measurable precipitation intensity (>=0.01 inches per day). For example, the January percentage of >=0.25 (% >/ 0.25 Jan.) inches/day equals 16.9%, box C of Table 4-1 as:

$$\% >/ 0.25_{Jan.} = (1.21/7.17) *100\% = 16.9\%$$

4.2.1.6. Deficiency Index

The monthly deficiency index, DI_i, is calculated by:

$$DI_i = (VAR_i/(F0.01/12))^{0.5} \text{----------} (4\text{-}18)$$

Where VAR_i is the monthly or annual precipitation variability, and $F_{0.01}$ is the monthly or mean monthly frequency of days with measurable precipitation. Note that the mean monthly frequency is used to compute the annual deficiency index. For example, the annual DI is computed as:

$$DI = (0.19/(90.33/12))^{0.5} = 0.160$$

As shown in equation (4-24), the deficiency index is computed as a positive function of variability and a negative function of frequency. Hence, a high deficiency index indicates a high variability and low measurable precipitation intensity, and produces a negative effect for the establishment of vegetation. In Nevada, values range from a low of 0.1 to a high of 1.0 and have been computed for the annual deficiency index. The deficiency index along with current vegetative cover will identify soil vegetative capabilities of a site and provide a valuable hydrologic indicator for selection of suitable vegetation manipulation practices.

4.2.1.7. Dominant Vegetation Type

Precipitation and its measurable intensity, and variability are the vital parameters in terms of the effective moisture for vegetation growth. Because the deficiency index is computed as a function of the variability and measurable intensity frequency, two parameters, annual march precipitation, and annual deficiency index, are selected to determine the expected dominant vegetation type. Five annual precipitation categories, >24", 16"-24", 9"-16", 4"-9", and <4 inches, and seven annual deficiency index classes, <0.12, 0.12-0.16, 0.16-0.23, 0.23-0.33, 0.33-0.45, 0.45-0.60, and >0.60, have been proposed for the purpose of classifying the vegetation type.

Distributation of 18 vegetation types for each combination of annual precipition categories and annual deficiency index classes, have been classified in Table 13 of Manual 9173.4. For an annual precipitation (Calendar S_i or CSI) of 12.72 inches and annual deficiency index of 0.160, the expected dominant vegetation type is PJ (Pinyon Juniper), SB (Sagebrush), and GW (Greasewood) in the area of rain can 12, Rock Springs Watershed, Elko District. Examination of site specific data of the Rock Spring Report reveals that Juniper (60%) and Big Sage (30%) are the dominant vegetation types.

4.2.2. Stockwater Application

The water supply for livestock and wildlife is often deficient due to improper estimation of water yield. This is especially true of impermeable surface catchment systems. The optimum water supply can be provided through installation of properly sized water catchment apron areas and storage tanks.

Since the water yield from the water catchment area is a direct function of variations of precipitation, a computer program, "AQUATANK", has been developed. The "AQUATANK" program applies the monthly precipitation and frequency, in conjunction with the water demand, to calculate a three year period of water yield. The design of the program balances expected water use requirements with expected precipitation and storage to provide water when needed utilizing minimum storage and catchment apron facilities. With iterations of various standard deviation percentages and storage tank sizes, the feasible water catchment area (in SQ. FT.) and storage tank size (in GALLONS or in CU. FT.) are computed as shown in Table D. A sample analysis is based on the long-term mean and frequency of precipitation records for rain can 12, Rock Springs Watershed, Elko District (Table C-1-1). The results are shown on Table D-1-1.

4.2.2.1. Water Requirement for Livestock and Wildlife

The monthly water demand, WD_i, is calculated by the number of animals, NA, daily consumption (in GALLONS/day), DC, with the assumption of 30-day/month as:

$$WD_i = NA \times DC \times 30 \text{ ---------------------(4-19)}$$

If MC is used to express the months of consumption, the annual water demand, AWD, is computed as:

$$AWD = WD_i \times MC \text{ -------------------------(4-20)}$$

As shown in Table 4-2-1, the annual water requirement for 200 head of cattle at 15 gallons/day from May to October is 540,000 gallons, as shown in box a, and the annual water requirement for 10 head of wild horses at 15 gallons/day 12 months per year is 54,000 gallons as shown in box b, for a total 594,000 gallons.

4.2.2.2. Net Water Supply

After precipitation, a water storage tank receives runoff from the catchment apron. Before runoff occurs on a catchment apron, a certain percentage of the precipitation is

Table 4-2-1;

```
                            COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
                            FOR ROCK SPRINGS WATERSHED, ELKO DISTRICT, NEVADA.
                                        RAIN CAN #; 12
                                        LOCATION; LAT.= 41°49' N.
                                                  LON.=114°23' W.
                                        ELEVATION;  5900 FT.
                                        WATER REQUIREMENT;
                                            CATTLE:  200 HEAD AT 15 GPD. MAY-OCT INCLUSIVE. 540000.0[a]  GALLONS/YEAR
                                            HORSES:   10 HEAD AT 15 GPD. JAN-DEC INCLUSIVE.  54000.0[b]  GALLONS/YEAR
---------------------------------------------------------------------------------------------------------------------------
                   JAN      FEB      MAR      APR      MAY      JUN      JUL      AUG      SEP      OCT      NOV      DEC   ANNUAL
RAIN(INCHES)  0.8689   0.8472   0.9252   1.3060   1.7227   1.4105   0.8946   0.9423   0.8980   1.0792   0.9538   0.8699  12.7183
 ANNUAL STANDARD DEVIATION
              0.1705   0.1662   0.1815   0.2563   0.3380   0.2768   0.1755   0.1849   0.1762   0.2118   0.1872   0.1707   2.4955
 DAYS>=.01"
              7.1659   7.1015   8.0934   7.2352  11.0639   9.1516   6.4127   7.7236   7.5757   6.6700   5.7591   6.3723  90.3251
 DAYS>=.10"
              3.3488   3.9377   4.1887   4.7653   6.3959   5.3316   2.9430   3.9078   3.8234   3.5182   3.2925   3.5162  48.9692
 AMOUNT <.1"
              0.1909   0.1582   0.1952   0.1235   0.2334   0.1910   0.1735   0.1908   0.1876   0.1576   0.1233   0.1428   2.0678
 RAINS >=.1"
              0.6780[c] 0.6890  0.7299   1.1825   1.4893   1.2195   0.7211   0.7515   0.7103   0.9217   0.8305   0.7271  10.6505
---------------------------------------------------------------------------------------------------------------------------
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD),RASD(IN %); 6.5406
  ANNUAL PRECIPITATION IS REDUCED BY; 0.1632 INCHES.
  EXCEEDENCE PROBABILITY IS 52.5508 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  12.5551 INCHES EACH YEAR, 52.5508% OF THE TIME.
 3)TWO RSD(LTN-2RASD),2RASD(IN %);13.0812
  ANNUAL PRECIPITATION IS REDUCED BY; 0.3264 INCHES.
  EXCEEDENCE PROBABILITY IS 55.1017 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  12.3918 INCHES EACH YEAR, 55.1017% OF THE TIME.
---------------------------------------------------------------------------------------------------------------------------
```

lost due to evaporation. The evaporation rate depends on the vapor pressure of the water body and that of the air. The factors affecting vapor pressure are temperatures of the water and air, wind, water quality, the nature and shape of the apron surface, etc. The quantative evaluation of these various factors is difficult because of their interdependent effects. Therefore, two simplified procedures are used to estimate evaporation losses.

First, the monthly precipitation intensity of less than 0.1 inches/day, LSD_i, is assumed to offset evaporation loss. The monthly precipitation of larger than 0.1 inches/day, LGD_i, is calculated by subtracting LSD_i from monthly calendar precipitation CS_i, as:

$$LGD_i = CS_i - LSD_i \text{ ----------------------(4-21)}$$

Where LSD_i is indirectly computed by the monthly frequency of days larger than or equal to 0.01 inches, $DL0.01_i$, and the monthly frequency of days larger than or equal to 0.1 inches, $DL0.1_i$, as:

$$LSD_i = (DL0.01_i - DL0.1_i) \times ((0.1)/2) \text{ --(4-22)}$$

The term of ((0.1)/2) in the right hand side of equation 4-28 is obtained from the assumption that the average amount of the precipitation amount less than 0.1 inches per day is 50 percent. From Table D-1-1, for 7.17 days of $DL0.01_i$, and 3.35 days of $DL0.1_i$, the LSD_i in January equals 0.19 inches for Rain Can 12 of Rock Springs Watershed, Elko District. The LGD_i equals 0.68 inches which is the CS_i (0.87 inches) subtracted by LSD_i (0.19 inches), as shown in box c.

Secondly, for the portion of precipitation intensity larger than 0.1 inches/day, a 10 percent evaporation loss is used to calculate the monthly net water supply, NWS_i, as:

$$NWS_i = LGD_i \times 0.9 \text{ ----------------------(4-23)}$$

Regional variations of evaporation for different watersheds can be manually changed for the AQUATANK program. Hence, the percentage of evaporation loss can be changed by using solar radiation, wind speed, temperature, etc., to obtain a higher confidence level for evaporation losses.

4.2.2.3. Annual Deficiency Index and Effective Annual Precipitation

Three precipitation inputs, 1) long-term normal (LTN), 2) one RASD, and 3) two RASD, are used to calculate catchment sizes (square feet) and storage tank volume (gallons). The storage tank is sized in that a minimum of one month's water storage is always available. Reduced annual standard deviation (RASD) is calculated by using deficiency index.

Since effective precipitation is a function of variability (VAR) and measurable frequency (MF), and annual deficiency index (ADI) is calculated by:

$$ADI = (VAR/(MF/12))^{0.5} \text{ -----------------(4-24)}$$

An ADI range from 0.14 to 0.56 is used to calculate RASD. These values were determined from an analysis of NWS data related to precipitation variability and frequency of measurable intensity. The equation to calculate RASD is:

$$RASD = (ADI - 0.14)/(0.56 - 0.14) \text{-------(4-25)}$$

For example, with an ADI of 0.1675, the RASD is 0.065406 (or 6.5406%) for Table 4-2-1. The annual standard deviation is 2.49 inches. One RASD equals 0.1632 inches which is the product of 2.49 and 0.065406.

Note the four decimal numbers are used to demonstrate the calculation procedure.

Since standard deviation can be expressed as a function of normally distributed exceedence probability, Figure 4-1 is used to calculate the exceedence probability. For the long-term mean of a normal distribution, the exceedence probability is 50 percent. Based on analysis of the classic normal bell distribution curve we note that in reducing a full 100 percent standard deviation (-100 percent SD), the exceedence probability increases from 50 percent to 84.13 percent. From Figure 4-1, every 20 percent reduced standard deviation can be expressed as:

-% Standard Deviation	0(orLTN)	20	40	60	80	100
% Exceedence Probability	50	57.8	66.1	72.0	78.6	84.13

In our example using an ADI value of 0.1675, we note that one RASD is 6.5406 peecent for rain can 12 of Rock Spring Watershed as shown in Table 4-2-1, and the calculated exceedence probability equals 52.5508 percent. For two RASD, the calculated exceedence probability equals 55.1017 percent, and the effective annual precipitation reduces from 12.7183 inches to 12.3918 inches. This means that the resulting value of annual precipitation of 12.39" will be equaled or exceeded 55.1 percent of the time.

4.2.2.4. Catchment Area and Required Tank Size

Since catchment area, CA (ft.^{2}), is a function of total annual water demand (gallons/year), TWD, and effective annual precipitation (inches/year), EAP, CA can be calculated as:

$$CA = TWD/(EAP \times CCA) \text{ ------------------(4-26)}$$

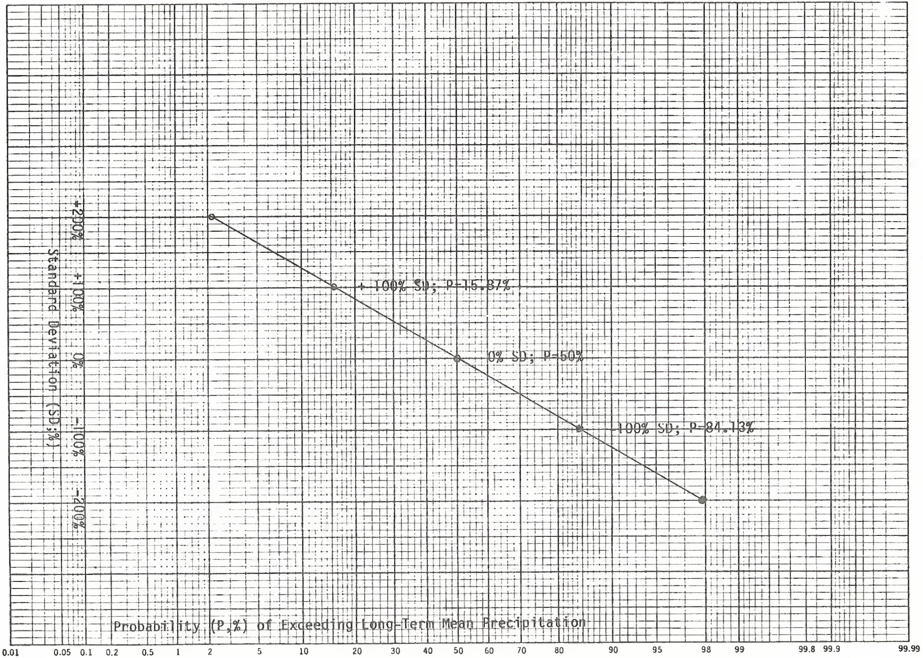


Figure 4-1, Normally Distributed Exceedence Probability Curve to Calculate Reduced Annual Standard Deviation (RASD)

TWD is the total annual water demand of grazing livestock and wild horses. In this example, the TWD for cattle and horses is 594,000 gallons/year.

The EAP is computed as the sum of monthly net water supply as:

$$EAP = \underset{i=1}{\overset{12}{}} NWS_i \text{ ------------------------(4-27)}$$

The three parameters, CA, TWD, and EAP in the equation 4-26 are exchangeable by the conversion constant, CCA (0.6233), which has a unit of gallons/ft^3 x in/ft to convert TWD/EAP (gallon/inch) into CA (ft^2). In our example, CA (box a of Table 4-2-2) becomes:

$$CA = 594{,}000/(9.5854 \times 0.6233)$$

$$= 99{,}404 \text{ ft}^2$$

The initial iteration of the "AQUATANK" program assumes the primary tank size, PTS, equals TWD to calculate water balance.

4.2.2.5. One-Year Water Balance Cycle

To demonstrate the calculation procedure of one-year water balance, a straight line function has been used to compute monthly water demand from total annual water demand. The one-year water balance includes water yield, water demand and water balance.

4.2.2.5.1. Water Yield

The monthly water yield, WY_i, is calculated by the catchment area, CA, the monthly net water supply, NWS_i, and the conversion constant, CCA, as:

$$WY_i = NWS_i \times CA \times CCA \text{ -----------------(4-28)}$$

Where CCA equals 0.6233 and has the same unit as shown in equation 4-26. For 0.6201 inches of February monthly effective precipitation, the February water yield, WY_2, box b of Table 4-2-2 becomes:

$$WY_2 = 99{,}404 \times 0.6201 \times 0.6233$$

$$= 38{,}430 \text{ (gallons)}$$

Table 4-2-2; Continuation of Table 4-2-1

```
-----------------------------------------------------------------------------------------------------------------------
                 JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
  *C=0.9
               0.6102     0.6201     0.6569     1.0642     1.3404     1.0975     0.6490     0.6764     0.6393     0.8295     0.7475     0.6544
          CATCHMENT AREA = 99404[a] SQUARE FEET.   EFFECTIVE ANNUAL PRECIPITATION = 9.5854 INCHES
 WATER YIELD (WY)
+++++FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
               37815.     38430.[b]  40710.     65950.     83062.     68012.     40216.     41913.     39617.     51403.     46319.     40554.
      SUM
               37815.     76244.    116954.    182904.    265966.    333978.    374194.[c] 416106.    455724.    507126.    553446.    594000.
WATER DEMAND (WD)
               49500.     99000.    148500.    198000.    247500.    297000.    346500.    396000.    445500.    495000.    544500.    594000.[d]
WATER BALANCE (WB)
              -11685.    -11070.     -8790.     16450.     33562.     18512.     -9284.     -7587.     -9883.      1903.     -3181.     -8946.
ANNUAL WATER DEFICIENCY=    70423
FOR CATCHMENT AREA=    99404
 WATER YIELD (WY)
               37815.     38430.     40710.     65950.     83062.     68012.     40216.     41913.     39617.     51403.     46319.     40554.
 SUM(YR. 1-3)
              132315.[e] 170744.[f] 211454.    277404.    360466.    428478.    468694.    510606.    550224.    601626.    647946.    688500.
              726315.    764744.    805454.    871404.    954466.   1022478.   1062694.   1104606.   1144224.   1195626.   1241946.   1282500.
             1320315.   1358744.   1399454.   1465404.   1548466.   1616478.   1656694.   1698606.   1738224.   1789626.   1835946.   1876500.
WATER DEMAND (WD)
                4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                4500.      9000.     13500.     18000.    112500.[g] 207000.    301500.    396000.    490500.    585000.    589500.    594000.
              598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
             1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
              127815.    161744.    197954.    259404.    247966.[h] 221478.    167194.    114606.     59724.     16626.     58446.     94500.
              127815.    161744.    197954.    259404.    247966.    221478.    167194.    114606.     59724.     16626.     58446.     94500.
              127815.    161744.    197954.    259404.    247966.    221478.    167194.    114606.     59724.     16626.     58446.     94500.
FOR SEASONAL CONSUMPTIVE USE;
    CATCHMENT SIZE;    99404,  TANK SIZE;    294181
 WATER YIELD (WY)
               37815.     38430.     40710.     65950.     83062.     68012.     40216.     41913.     39617.     51403.     46319.     40554.
 SUM(YR. 1-3)
              167092.    205521.    246231.    312181.    395243.    463255.    503471.    545383.    585001.    636403.    682723.    723277.
              761092.    799521.    840231.    906181.    989243.   1057255.   1097471.   1139383.   1179001.   1230403.   1276723.   1317277.
             1355092.   1393521.   1434231.   1500181.   1583243.   1651255.   1691471.   1733383.   1773001.   1824403.   1870723.   1911277.
WATER DEMAND (WD)
                4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
              598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
             1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
              162592.    196521.    232731.    294181.    282743.    256255.    201971.    149383.     94501.     51403.     93223.    129277.
              162592.    196521.    232731.    294181.    282743.    256255.    201971.    149383.     94501.     51403.     93223.    129277.
              162592.    196521.    232731.    294181.    282743.    256255.    201971.    149383.     94501.     51403.     93223.    129277.
-----------------------------------------------------------------------------------------------------------------------
```

The sum of monthly water yield, SWY_i, is a cumulation of the monthly water yield and is expressed as:

$$SWY_i = \mathop{}\limits_{i=1}^{n} WY_i \text{ ------------------------(4-29)}$$

For example, the sum of monthly water yield up to July, SWY_7, (box c of Table 4-2-2) becomes:

$$SWY_7 = \mathop{}\limits_{i=1}^{7} (37{,}815 + 38{,}430 + \text{---} + 40{,}216)$$

$$= 374{,}194 \text{ gallons}$$

4.2.2.5.2. Water Demand

In one year water balance, water demand is assumed to be a straight line for an easier illustration. Using straight line interpretation of total annual water demand, TWD, the monthly water demand, WD_i, becomes:

$$WD_i = TWD/12 \text{ -------------------------(4-30)}$$

In graphic expression, the WD_i means a uniform slope of water demand with respect to time. The sum of January through December water demand SWD_{12}, (box d of Table 4-2-2) becomes total annual water demand:

$$SWD_{12} = TWD = 49{,}500 \times 12$$

$$= 594{,}000 \text{ gallons}$$

4.2.2.5.3. Water Balance

The monthly water balance, WB_i, is computed by the monthly water yield, WY_i, and the monthly water demand, WD_i. In Table D, the one-year water balance is expressed by the sum of water yield, SWY, the sum of water demand, SWD, and the sum of water yield, SWY, as:

$$SWB_i = SWY_i - SWD_i \text{ ------------------(4-31)}$$

To supply ten head of horses and 200 head of cattle, the January monthly water balance, SWB_i, becomes a supply deficiency:

$$SWB_1 = 37{,}815 - 49{,}500$$

$$= -11{,}685 \text{ gallons}$$

The deficiencies of stockwater supply have been observed for January through March, July through September, and November and December in the columns of water balance. Without storage, or minimal storage, 70,423 gallons out of a total of 594,600 gallons produced would be lost. Therefore, storage tank is essential.

In our example, the technique used to overcome the water deficiency is the storage of the yielded water in long-term before the water demand is started. Other techniques would include accumulations during periods when supply exceeds demand.

4.2.2.6. Three-Year Water Balance Cycle

Actual water demand reflects the monthly variation of livestock and stocking rates. In the example of three-year water balance, the monthly water demand applies the real monthly variation of livestock and wild horses. Another factor in three-year water balance is the storage of water yield the maximum one month's water demand in the storage tank before the starting the consumption of water.

4.2.2.6.1. Water Yield in Catchment Apron

The monthly water yield and the sum of the annual water yield in the three-year water balance are calculated by the equations 4-28 and 4-29, respectively. To overcome the water deficiency in the starting months, the maximum monthly water demand (94,500 gallons) is added in the first months water yield as:

$$SWY_i = WY_{max} + \overset{n}{\underset{i=1}{}} WY_i \text{ --------------(4-32)}$$

The water balance of January, first, SWY_1 (box e of Table 4-2-2), becomes:

$$SWY_i = 94{,}500 + 37{,}815$$

$$= 132{,}315$$

For February of the second year, SWY_{14} (box f of Table 4-4-2) can be calculated as:

$$SWY_{14} = SWY_1 + WY_2 + \text{------------} \; WY_{14}$$

$$= 132{,}315 + 38{,}430 + \text{--------} + 37{,}815$$

$$= 764{,}744$$

4.2.2.6.2. Water Demand

In our example, wild horses are assumed to stay in the watershed to consume water all year round, while cattle are only allowed to graze from May to October. Hence, two groups of monthly water demand are used: one for the months from January through April and November to December, which is 4,500 gallons for horse consumption only, and another for the months of May through October, which is 94,500 gallons for the combined consumption of horses and cattle.

As shown in Table 4-2-2, the fifth month of the three-year water balance is the first month that water is consumed by both horses and cattle. In this case, the accumulated water demand up to May of the first year, WD_5, is computed as:

$$\begin{aligned} WD_5 &= WD_1 + WD_2 + \text{---} + WD_5 \\ &= 4{,}500 + 4{,}500 + \text{---} + 94{,}500 \\ &= 112{,}500 \text{ gallons (box g of Table 4-2-2)} \end{aligned}$$

4.2.2.6.3. Water Balance

The procedure to calculate water balance in the three-year water balance cycle is different from the one-year water balance cycle because the tank has water in storage before the water demand starts. If the current monthly water yield, WY_i, water demand, WD_i, and previous month water balance, WB_{i-1}, are known, then the current monthly water balance WB_i can be calculated as:

$$WB_i = WB_{i-1} + WY_i - WD_i \text{ ---------------(4-33)}$$

Thus, for the water balance in May of the second year, WY_{17}, should be:

$$\begin{aligned} WB_{17} &= WB_{16} + WY_{17} - WD_{17} \\ &= 259{,}404 + 83{,}062 - 94{,}500 \\ &= 247{,}966 \text{ gallons (box h of Table 4-2-2)} \end{aligned}$$

4.2.2.6.4. Water Balance for Seasonal Consumptive Use

Because precipitation can and does occur at any time during the month, one month's water supply is always available in storage at the start of each month. At tank volume of 294,181 gallons and catchment size of 99,404 square feet, we observe that the WB_9 equals WD_{10} (94,500 gallons).

4.2.2.7. Reduced Standard Deviation

At iteration 2, effective precipitation of one RSD (LTN-RASD), is used to calculate optimum catchment size and tank volume. In the program the previous catchment size is used for the first three-year water balance cycle; however, the monthly water balance is not stable. As shown in Table 4-2-3, the December monthly water balance reduces from 86,877 gallons in the first year to 79,254 gallons (box a of Table 4-2-3) in the second year, a shortage of 7,623 gal.

In order to produce enough water for annual water demand, the new catchment size, which is calculated by equation 4-32, should increase to 100,696 square feet (box b of Table 4-2-3). The monthly water balance of the three-year water balance cycle is then stabilized.

With the catchment size increased to 102,000 square feet (box a of Table 4-2-4) in iteration 3, the water balance is stabilized with similar method as shown in iteration 2.

4.2.2.8. Decision Making and User Interface

The AQUATANK (or AQQW in example) program is designed to allow for the direct interface by users. The program is user friendly and provides a simple approach to guide the user in solving rather complex problems. In the later version, four major parameters, - - effective precipitation, annual water demand, catchment area, and tank volume, - - are summarized for five precipitation inputs. The user can interface and vary the input. Appendix 6 lists all example outputs of decision making and user interface for all 12 watersheds.

After logging on to the terminal, a user can input the program name (AQQW) to execute the data file (i.e., 111DT for Rock Springs) in tape 03 and output file in tape 09. The program will calculate catchment area and tank volume for three precipitation inputs. The 36 stable monthly water balances are also listed. Two more precipitation inputs, 4) 3RSD and 5) 4RSD, are also calculated. The catchment area is 103,330 square feet for 3 RSD and is 104,673 square feet (box b of Table 4-3-1) for 4 RSD. As explained previously, the recommended precipitation input is a function of the deficiency index. With an 0.17 annual deficiency index, the recommended precipitation case is 2 which has an effective precipitation of 9.4624 inches (box a of Table 4-3-1). The required catchment area is 100,695 square feet in order to produce 594,000 gallons annual water demand.

Table 4-2-3; Continuation of Table 4-2-2

```
 2)ONE RSD(LTN-RASD),RASD(IN %); 6.5406
                  JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
  *C=0.9
               0.6024     0.6122     0.6485     1.0506     1.3232     1.0834     0.6406     0.6677     0.6311     0.8188     0.7379     0.6460
+++ EFFECTIVE ANNUAL PRECIPITATION=  9.4624 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    99404,  TANK SIZE;    294181
 WATER YIELD (WY)
               37329.     37936.     40188.     65104.     81996.     67139.     39700.     41375.     39109.     50743.     45725.     40034.
 SUM(YR. 1-3)
              131829.    169766.    209953.    275057.    357053.    424192.    463891.    505266.    544375.    595118.    640843.    680877.
              718206.    756143.    796330.    861434.    943430.   1010568.   1050268.   1091643.   1130752.   1181495.   1227220.   1267254.
             1304583.   1342520.   1382707.   1447811.   1529806.   1596945.   1636645.   1678020.   1717129.   1767872.   1813597.   1853631.
WATER DEMAND (WD)
                4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
              598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
             1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
              127329.    160766.    196453.    257057.    244553.    217192.    162391.    109266.     53875.     10118.     51343.     86877.
              119706.    153143.    188830.    249434.    236930.    209568.    154768.    101643.     46252.      2495.     43720.     79254.a
              112083.    145520.    181207.    241811.    229306.    201945.    147145.     94020.     38629.     -5128.     36097.     71631.
  ***SKIP ONE ITERATION ***
     IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=   100696b
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   100696,  CHANGE TANK SIZE TO;   294181
 WATER YIELD (WY)
               37815.     38430.     40710.     65950.     83062.     68012.     40216.     41913.     39617.     51403.     46319.     40554.
 SUM(YR. 1-3)
              167092.    205521.    246231.    312181.    395243.    463255.    503471.    545383.    585001.    636403.    682723.    723277.
              761092.    799521.    840231.    906181.    989243.   1057255.   1097471.   1139383.   1179001.   1230403.   1276723.   1317277.
             1355092.   1393521.   1434231.   1500181.   1583243.   1651255.   1691471.   1733383.   1773001.   1824403.   1870723.   1911277.
WATER DEMAND (WD)
                4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
              598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
             1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
              162592.    196521.    232731.    294181.    282743.    256255.    201971.    149383.     94501.     51403.     93223.    129277.
              162592.    196521.    232731.    294181.    282743.    256255.    201971.    149383.     94501.     51403.     93223.    129277.
              162592.    196521.    232731.    294181.    282743.    256255.    201971.    149383.     94501.     51403.     93223.    129277.
```

Table 4-2-4; Continuation of Table 4-2-3

```
---------------------------------------------------------------------------------------------------------------------------------------
 3)TWO RSD(LTN-2RASD),2RASD(IN %);13.0812
                     JAN       FEB       MAR       APR       MAY       JUN       JUL       AUG       SEP       OCT       NOV       DEC
   *C=0.9
                  0.5947    0.6043    0.6402    1.0371    1.3062    1.0695    0.6324    0.6591    0.6230    0.8083    0.7284    0.6377
+++ EFFECTIVE ANNUAL PRECIPITATION=  9.3410 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   100696,  TANK SIZE;   294181
 WATER YIELD (WY)
                  37329.    37936.    40188.    65104.    81996.    67139.    39700.    41375.    39109.    50743.    45725.    40034.
 SUM(YR. 1-3)
                 131829.   169766.   209953.   275057.   357053.   424192.   463891.   505266.   544375.   595118.   640843.   680877.
                 718206.   756143.   796330.   861434.   943430.  1010568.  1050268.  1091643.  1130752.  1181495.  1227220.  1267254.
                1304583.  1342520.  1382707.  1447811.  1529806.  1596945.  1636645.  1678020.  1717129.  1767872.  1813597.  1853631.
WATER DEMAND (WD)
                   4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                   4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                 598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 127329.   160766.   196453.   257057.   244553.   217192.   162391.   109266.    53875.    10118.    51343.    86877.
                 119706.   153143.   188830.   249434.   236930.   209568.   154768.   101643.    46252.     2495.    43720.    79254.
                 112083.   145520.   181207.   241811.   229306.   201945.   147145.    94020.    38629.    -5128.    36097.    71631.
  ***SKIP ONE ITERATION ***
     IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=   102005[a]
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   102005,  CHANGE TANK SIZE TO;   294181
 WATER YIELD (WY)
                  37815.    38430.    40710.    65950.    83062.    68012.    40216.    41913.    39617.    51403.    46319.    40554.
 SUM(YR. 1-3)
                 167092.   205521.   246231.   312181.   395243.   463255.   503471.   545383.   585001.   636403.   682723.   723277.
                 761092.   799521.   840231.   906181.   989243.  1057255.  1097471.  1139383.  1179001.  1230403.  1276723.  1317277.
                1355092.  1393521.  1434231.  1500181.  1583243.  1651255.  1691471.  1733383.  1773001.  1824403.  1870723.  1911277.
WATER DEMAND (WD)
                   4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                   4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                 598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
                 162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
                 162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
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```

Table 4-3-1, Decision Making and User Interface for AQUATANK Program

```
*FRN AQQW#111DT"03";09
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS)
 FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED:  1)LONG TERM NORMAL(LTN), 2)ONE
RASD*, AND 3)TWO RASD.
  *WHERE: RASD is defined as reduced annual standard deviation by using
 deficiency index.
1)LTN: USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
2)ONE RSD(LTN-RASD),RASD(IN %): 6.5406
3)TWO RSD(LTN-2RASD),2RASD(IN %):13.0812
THE 36 STABLE MONTHLY WATER BALANCES ARE:
               162592.   196521.   232731.   294181.   282743.   256255.
   201971.   149383.    94501.    51403.    93223.   129277.
               162592.   196521.   232731.   294181.   282743.   256255.
   201971.   149383.    94501.    51403.    93223.   129277.
               162592.   196521.   232731.   294181.   282743.   256255.
   201971.   149383.    94501.    51403.    93223.   129277.
FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS:
                       PARAMETERS
 PRECIPITATION         ANNUAL WD  CATCHMENT       TANK
 CASE NAME  IN./YR.         GAL.     SQ.FT.       GAL.
   1   LTN   9.5854       594000      99403     294181
   2  1RSD   9.4624a      594000     100695     294181
   3  2RSD   9.3410       594000     102004     294181
   4  3RSD   9.2211       594000     103330     294181
   5  4RSD   9.1028       594000     104673b    294181
SINCE ANNUAL DEFICIENCY INDEX(ADI)= 0.17, CASE 2)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE THE SYSTEM BY CHANGING:
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN, 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=1c
WHAT PREC. CASE? LTN, 1RSD, OR 2RSD,...(IF LTN=1, 1RSD=2, --- 5RSD=5.,)
=1d
```

4.2.2.8.1. Precipitation Variation

The terminal will print "USER MAY REEVALUATE THE SYSTEM BY CHANGING: 1) PRECIPITATION (NPR); 2) ANNUAL WATER DEMAND (NAD); 3) CATCHMENT SIZE (NCS); 4) TANK VOLUME (NTV), USER MAY ALSO SELECT NOT TO RERUN; and 5) END."

The first selected code is 1 (box c of Table 4-3-1) which means changing precipitation input. The second question is "WHAT PRECIPITATION CASE?". If the user decides the site should have more effective precipitation, precipitation case 1 can be used by typing in 1 (box d of Table 4-3-1).

The terminal will remind the user with the recommended case number, effective annual precipitation, and catchment area. Since the effective annual precipitation increases from 9.4624 inches of recommended case #2 to 9.5854 inches of case #1, the water balance increases from 136,999 gallons for first year to 152,444 gallons the third year.

When increases in precipitation values are made, we may also increase the numbers of animals or reduce the catchment or tank sizes. Our example, the program calculates a reduction in catchment size from 100,695 to 99,402 square feet (box a of Table 4-3-2).

4.2.2.8.2. Water Demand Variation

Variation of water demand can be achieved by changing numbers of animals, daily consumptive rate and consumptive months. The terminal requests "HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?" for cattle and wild horses separately.

In our illustrated example, the number of cattle is reduced from 200 head to 100 head, and wild horses are reduced from 20 head to 10 head. Since the water demand is reduced, the water balance increases from 426,277 gallons (box b of Table 4-3-2) for the first year to 1,020,277 gallons (box c of Table 4-3-2) for the third year.

Due to the reduction of water demand, the catchment area can be reduced to 50,347 square feet. Other options, such as the reduction of tank size can also be done to alter the economics of the proposal.

4.2.2.8.3. Catchment Size Variation

In the recommended effective precipitation case #2, the calculated catchment area is 100,695 square feet in order to produce annual water availability of 594,000 gallons. A larger catchment area will produce a water surplus for water balance.

Table 4-3-2; Continuation of Table 4-3-1

```
AT THE RECOMMENDED CASE #;  2, PREC.=  9.4624 INCHES.  CATCHMENT=   100
695 SQ.FT.
THE PREC. CHANGE TO;  9.5854
MONTHLY WB;   163083.   197512.   234252.   296559.   286201.   260596.
   206835.   154793.   100425.    57996.   100418.   136999.
MONTHLY WB;   170805.   205235.   241974.   304281.   293923.   268319.
   214557.   162515.   108148.    65718.   108140.   144721.
MONTHLY WB;   178528.   212957.   249696.   312003.   301645.   276041.
   222280.   170237.   115870.    73441.   115862.   152444.
DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;    99402 a
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=1
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=2
 CHANGE FOR CATTLE;
HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
    E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200
15  5 10
= 100 15  5 10
 CHANGE FOR WILDLIFE;
HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
    E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200
15  5 10
=   5 15  1 12
MONTHLY WB;   164842.   201021.   239481.   303181.   338993.   359755.
   352721.   347383.   339751.   343903.   387973.   426277. b
MONTHLY WB;   461842.   498021.   536481.   600181.   635993.   656755.
   649721.   644383.   636751.   640903.   684973.   723277.
MONTHLY WB;   758842.   795021.   833481.   897181.   932993.   953755.
   946721.   941383.   933751.   937903.   981973.  1020277. c
DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;    50347
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=1
```

In our example, a catchment size of 90,000 square feet (box a of Table 4-3-3) is entered. As a consequence a deficiency occurs in the water balance, and the user should reduce annual water demand from 594,000 gallons to 530,910 gallons (box b of Table 4-3-3).

4.2.2.8.4. Tank Volume Variation

In order to have one month extra water surplus for carry-over, the required tank volume is 294,181 gallons. If the user happens to have a tank volume of 220,000 gallons (box c of Table 4-3-3), we will observe 12,731 gallons (box d of Table 4-3-3) of water waste in the third month and 61,450 gallons of water waste in the fourth month. A reduction of grazing animals is necessary to correlate with the annual water waste of 74,181 gallons (box e of Table 4-3-3).

Table 4-3-3; Continuation of Table 4-3-2.

```
*** USER MAY REEVALUATE THE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=3
CHANGE CATCHMENT SIZE;
HOW MANY SQ.FT.? E.G., 55000 ENTER    55000
=90000[a]
MONTHLY WB;   158575.   188423.   220309.   274755.   254494.   220782.
   162227.   105188.    46098.    -2459.    34440.    66187.
MONTHLY WB;    95485.   125333.   157219.   211665.   191404.   157692.
    99137.    42098.   -16992.   -65549.   -28650.     3097.
MONTHLY WB;    32396.    62244.    94130.   148575.   128315.    94603.
    36047.   -20992.   -80082.  -128639.   -91739.   -59992.
DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
ANNUAL WATER DEMAND(GAL.) CHANGE TO;   530910[b]
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=1
*** USER MAY REEVALUATE THE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=4
CHANGE TANK VOLUME;
HOW MANY GALLONS? E.G., 88000 ENTER    88000
= 220000[c]
MONTHLY WB;   162592.   196521.   232731.   294181.   282743.   256255.
   201971.   149383.    94501.    51403.    93223.   129277.
MONTHLY WB;   162592.   196521.   232731.   294181.   282743.   256255.
   201971.   149383.    94501.    51403.    93223.   129277.
MONTHLY WB;   162592.   196521.   232731.   294181.   282743.   256255.
   201971.   149383.    94501.    51403.    93223.   129277.
WATER WILL SPILL OUT IN; MONTH #= 3 WATER BAL.(GAL.)=  232731. WATER WA
STE=    12731[d]
WATER WILL SPILL OUT IN; MONTH #= 4 WATER BAL.(GAL.)=  294181. WATER WA
STE=    61450
TOTAL WASTE(GAL./YEAR)=    74181[e]
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=0
```

5.0. Results and Discussions:

Tables A,B,C, and D summarize the results of the NWS. Table A is a summary of the results of precipitation records for all rain cans shown in Table B. Verifying the raw data, Table B lists the precipitation record in chronological order for each rain can. The data includes all NWS information from the beginning of monitoring in the summer of 1964 through calendar year 1980.

The long-term mean and frequency of precipitation are displayed in Table C which provides the basic information describing the rainfall characteristics at specific NWS sites throughout Nevada.

Table D is an example of the practical application of NWS data for the hydrologic design of cattle and wildlife water developments.

Graphical presentations have been done for the monthly and annual precipitation records and the orographic lifting for each watershed.

5.1. Mean Monthly and Annual Precipitation Record:

Table A, long-term mean monthly and annual precipitation record, is condensed from raw data as shown in Table B. For each rain can, the elevation and monthly and annual total precipitation has been listed. The combined arithmetic mean is also listed. Table A-1-1 lists the precipitation records for the 23 rain cans in Rock Springs Watershed, Elko District. Located in the watershed outlet, rain can 1 has an elevation of 5,500 feet and its long-term mean annual precipitation is 11.45 inches. Rain can 3 has an elevation of 5,900 feet, but the long-term mean annual precipitation is only 10.84 inches which is lower than rain can 1.

The Rock Springs Watershed's 23 rain cans have a mean elevation of 6,119 feet and a long-term mean annual precipitation average of 13.23 inches.

An orographic lifting effect dominates most rain cans throughout the Crowley Creek Watershed though the orographic lifting trend is reversed on some rain cans. For example, rain can 9 has a higher elevation than rain can 11; yet, the annual total precipitation for rain can 9 is lower than rain can 11.

Microclimatic factors - - local wind speed, wind direction, basin aspect, etc. - - are complex and their influence to local precipitation may be observed as the results of reverse orographic lifting. Whether or not this reverse orographic lifting is a result of microclimatic factor is an issue beyond the scope of this report. However, the orographic lifting in term of regional analysis shows a reasonable correlation which is addressed in a later section. Orographic effect, correlation for the Cow Creek Watershed is weaker than the Crowley Creek Watershed.

Comparing the two watersheds in Carson City District, Eastgate, Table A-3-1, has a mean elevation of 5,795 feet which is 266 feet higher than Churchill Canyon, Table A-3-2. Eastgate has 9.93 inches of long-term mean annual precipitation which is also higher than Churchill Canyon. Three similar, low, long-term monthly precipitation distributions have been observed for both watersheds. Eastgate, March, July and September; and for Churchill Canyon, April, July and September. These occurrences verify that the precipitation sources are common for both sites.

Crane Springs Watershed of Elko District has 11 rain cans ranging from elevations of 5,320 feet to 6,350 feet with an average elevation of 5,795 feet for the basin. The minimum annual precipitation is 10.73 inches for rain can 3, while the maximum annual precipitation is 13.68 inches for rain can 7. Both of these rain cans are located on the windward side which can receive moisture moving inland from the Pacific Ocean.

The long-term mean annual precipitation is 12.31 inches for Crane Springs Watershed. Compared to Rock Springs Watershed in the same district, Crane Springs Watershed has a lower mean watershed elevation with a lower mean annual watershed precipitation. This supports the concept of precipitation rates correlating with elevation.

The monthly precipitation curve of the Crane Springs Watershed is similar to the Rock Springs Watershed data curve. For the long-term mean monthly precipitation records the peak monthly precipitation occurs in May for Crane Springs Watershed and in June for the Rock Springs Watershed. There are also two low monthly precipitation occurrences in the Crane Springs Watershed; these occur in March and July.

In Winnemucca District, the Crowley Creek Watershed, Table A-2-1, has a mean elevation of 5,752 feet; Cow Creek Watershed, Table A-2-2, has an elevation of 5,017 feet. The long-term mean annual precipitation is 12.18 inches for Crowley Creek Watershed, and only 8.22 inches for Cow Creek Watershed. This again reinforces the correlation of precipitation with elevation. Further analysis of this correlation will be discussed in regression analysis.

Both watersheds in Carson City District have seasonal maximum precipitation in a thermal transition period. For Eastgate the maximum precipitation occurs in the warming months of April through June; however, Churchill Canyon peaks in the cooling months of November, December and January.

Both watersheds in Ely District, Table A-4-1 and Table A-4-2, have a relatively higher elevation than other Districts; however, compared to other districts, the long-term mean annual precipitation of Ely District is relatively low. The winter season precipitation in both watersheds does not reveal the anticipated orographic effect.

Especially in the Steptoe Watershed, which has a mean elevation of 7,684 feet, the precipitation in the winter season is substantially lower than anticipated when compared to the nearby Ely NOAA data even though the occurrence curves support that they are in the same precipitation regime.

The climatological data for Ely Airport Station from the National Oceanic Atmospheric Administration (NOAA) have been used to check the monthly precipitation records of the Steptoe Watershed. Located 40 miles northwest of the Steptoe Watershed, this NOAA station has an elevation of 6,260 feet, and is situated in the valley bottom between the Schell Creek and Egan Ranges. This Ely site is somewhat in a rain-shadow relationship with the nearby Egan Range as relative to winter Pacific Component precipitation. The Steptoe Watershed is located in the western foothill of Schell Creek Range. The Ely Airport NOAA data shows that the long-term mean monthly precipitation for the months from January to December (in inches) are 0.64, 0.60, 0.85, 1.00, 0.93, 0.93, 0.61, 0.56, 0.61, 0.60, 0.64, and 0.71, respectively. The Ely Airport Station has a peak monthly precipitation in April while the Steptoe Watershed peaks in July. However, both sites reveal a lower winter season precipitation than occurs during spring and summer seasons. The similarity in monthly and seasonal precipitation data curves for these NWS and NOAA stations, reveals that the precipitation occurrence curves are closely related.

Pine and Mathews Canyon Watersheds are physically connected and we note that Mathews Canyon, Table A-5-1, has a maximum mean monthly precipitation in February, while Pine Canyon, Table A-5-2, peaks in March. The precipitation amounts during the winter season, for both watersheds, are higher than other seasons. Some substantial irregular orographic effect is observed in Pine Canyon. Comparing to rain can 1, rain can 3 is 200 feet lower but is 2.43 inches higher in annual long-term precipitation. As shown in Table A-6-1 and Table A-6-2, Battle Mountain District is the only district having reverse orographic effects in its two watersheds. Comparing the long-term arithmetic mean annual precipitation, Mill Creek and Coils Creek are the only two watersheds within the same district with a reverse orographic effect. Mill Creek is 1,008 feet lower in mean elevation yet it receives 1.76 inches more in long-term mean annual precipitation than Coils Creek.

5.2. Precipitation Record in Chronological Order.

Table B tabulates the precipitation record of the 12 watersheds from the initial data collection in 1962, to December 1980. All missing monthly precipitation data were calculated as described in this report and were included in Table B. Our data source was the original field records.

Because rain cans were eliminated to reduce costs in 1978, some rain cans only show the precipitation record through 1977. Since some rain cans were removed in 1978, comparisons of the mean monthly and annual precipitation data should be carefully done on pre-1978 and post-1978 bases. If the first month precipitation data did not start from January, the mean monthly and annual precipitation will not include the first year result. For example for rain can 1 in Table B-1-1, the precipitation record was not started until August 1963. Hence, the long-term mean annual watershed precipitation, 11.45 inches, does not include data of 1963.

Linear interpretation of the precipitation record has been a common practice for many users. The linear interpretation can be separated into two main components: linear time interpretation, and linear orographic interpretation. Neither of these interpretations are recommended for this report. For example, the low annual precipitation years of rain can 1 in Table B-1-1 occur in 1966 (3.78"), 1970 (11.54"), 1974 (7.59") and 1976 (8.70"). The low annual precipitation year does not occur from 1976 to 1980; hence, a linear interpretation is obviously not supportable due to a somewhat cyclic nature of the data.

To explain linear orographic effect, Table 5-1 lists the extremes for elevation and long-term mean annual precipitation of the 12 watersheds. For a total of 23 rain cans in Rock Springs Watershed (Code 1-1), the minimum elevation is rain can 10 (6119 feet). The maximum precipitation of rain can 10 (16.34 inches) matches the maximum elevation rain can; however, the minimum precipitation rain can does not match the minimum elevation rain can. Three watersheds, Crane Springs (Code 1-2), Mill Creek (Code 6-1), and Coils Creek (6-2) do not match in all minimum and maximum valves. Yet, two watersheds, Duckwater (Code 4-1) and Mathews Canyon (Code 5-1) match all minimum and maximum values. Other watersheds reveal only one match in either minimum or maximum value.

It is obvious that there is not a simple linear correlation. Our opinion is supportive of the long-term trend/cycle analysis and probability/frequency analysis; and therefore, the author does not recommend linear projection.

No attempt is made to further explain the raw precipitation data of each rain can in Table B, because there are so many rain cans in the 12

Table 5-1, Extremes of elevation and
long-term mean annual precipitation,
Nevada Watershed Studies

Watershed Code	Total Rain Cans	Elevation Minimum Can#	Elevation Minimum feet	Elevation Maximum Can#	Elevation Maximum feet	Elevation Mean of cans feet	Precipitation Minimum Can#	Precipitation Minimum inches	Precipitation Maximum Can#	Precipitation Maximum inches	Precipitation Mean* of cans inches
1-1	23	21	5460	10	7380	6119	7	11.24	10	16.34	13.23
1-2	11	1	5320	11	6350	5795	3	10.73	7	13.68	12.31
2-1	17	1	4520	12	6990	5752	1	9.88	10	14.50	12.18
2-2	16	1	4500	17	6200	5017	2	7.32	17	10.08	8.22
3-1	25	24	4650	15	7700	5794	1	7.81	15	13.33	9.93
3-2	16	3	4390	11	6960	5528	2	6.35	11	13.39	9.19
4-1	24	10	5800	16	6675	6219	10	8.47	16	12.13	10.14
4-2	15	1	7200	14	8150	7684	1	12.53	10	13.76	13.03
5-1	12	1	5600	12	5900	5760	1	14.88	12	17.43	16.32
5-2	9	9	5690	1	6520	6038	9	15.28	3	19.41	17.12
6-1	7	1	5040	7	7000	5959	2	9.91	5	16.08	13.17
6-2	20	20	6440	3	7820	6967	12	9.38	17	12.85	11.41

* Precipitation mean is determined from all rain cans with various length of records. For the total years of record of each rain can, readers are referred to Table B.

watersheds of NWS. The observed annual and monthly precipitation of the representative rain can for each of the 12 watersheds are graphically plotted as shown in Figures 5-1 through 5-24.

5.2.1. Selection of Representative Rain Can for Watershed

To select a representative rain can for each watershed, two criteria, -- non-edge site and least residual -- have been used. The non-edge site was selected because the boundary site has a limited application value. Residual value is calculated from the regression equation, and the least residual is closest to the predicted line.

Regression analysis of long-term mean annual precipitation and elevation for pre-1978 and post-1978 is tabulated in Table 5-2. The reduction in degree of freedom is due to the deletion of rain cans in 1978. In general, the regression coefficient, r^2, increases from pre-1978 to post-1978 for each watershed with the exception of the Mill Creek Watershed (Code 6-1). The regression analysis of the 12 watersheds are graphically presented in Figures 5-25 through 5-36.

The F-value is reduced in post-1978, but the significant level is similar in most watersheds. It is then the 12 regression equations of post-1978 are used to calculate predicted annual precipitation. Using the two criteria, the selected representative rain cans for watershed code 1-1 to 6-2 are 12, 2, 9, 10, 6, 1, 4, 6, 9, 4, 4, and 10, respectively.

5.2.2. Regional Precipitation Prediction

The effect of orographic lifting for the northern six watersheds of Nevada, which include Rock Springs, Crane Springs, Crowley Creek, Cow Creek, Mill Creek, and Coils Creek, is shown in Figure 5-37, and the effect of orographic lifting for the southern six watersheds is shown in Figure 5-38. Figure 5-39 and 5-40 show the orographic lifting effects for the western six watersheds and eastern six watersheds, respectively. Their regression equations, regression coefficients (r^2), and F-test are:

Figure #	Watershed Codes	Regression Coefficient 1) a	b	r^2	df	F-test 2)
5-37	1-1, 1-2, 2-1, 2-2, 6-1, 6-2	-0.05833	0.00197	70.17	1/54	63.35***
5-38	3-1, 3-2, 4-1, 4-2, 5-1, 5-2	3.25864	0.00142	35.32	1/59	8.41**
5-39	2-1, 2-2, 3-1, 3-2, 6-1, 6-2	-1.29259	0.00205	77.29	1/59	89.00***
5-40	1-1, 1-2, 4-1, 4-2, 5-1, 5-2	13.23894	-0.00004	0.85	1/54	0.01*

1) Estimated precipitation (Y, in inches) for a given elevation (X, in feet) is calculated by: $Y=a+b(X)$.

2) Readers are referred to Table 5-2 for a explanation of the F-test.

Table 5-2, Regression Analysis of Orographic Liftings and Selection of Representative Rain Can for NWS

Watershed Code	Regression Coefficients 1)		r^2 2)	df 3)	F-Value 4)	Representative Rain Can		
	a	b				No.	Elevation (ft.)	Residual of Y (in.)
1-1	-7.81198	0.00344	0.6883	1/21	53.64***			
1-1	-15.66605	0.00480	0.9208	1/9	50.17***	12	5900	0.0835
1-2	-0.10062	0.00214	0.7994	1/9	14.88***			
1-2	0.97043	0.00200	0.8687	1/5	15.37**	2	5420	-0.1326
2-1	2.29308	0.00172	0.9472	1/15	130.88***			
2-1	2.52795	0.00167	0.9527	1/8	78.66***	9	6840	0.1738
2-2	0.38100	0.00156	0.8636	1/14	41.09***			
2-2	0.49602	0.00155	0.8650	1/12	35.66***	10	4800	0.0565
3-1	-1.43805	0.00196	0.9163	1/23	120.41***			
3-1	-2.64237	0.00217	0.9286	1/11	68.83***	6	6200	0.0520
3-2	-8.98668	0.00340	0.9025	1/14	61.46***			
3-2	-8.97554	0.00345	0.9070	1/8	37.12***	1	4620	0.3180
4-1	-11.57160	0.00349	0.9035	1/22	97.80***			
4-1	-11.24176	0.00341	0.9332	1/13	87.71***	4	6265	-0.0108
4-2	4.80979	0.00107	0.6397	1/13	9.00**			
4-2	0.89577	0.00160	0.9106	1/7	33.97***	6	7400	0.0525
5-1	-23.61064	0.00693	0.7773	1/10	15.27***			
5-1	-34.68333	0.00889	0.8661	1/4	12.01**	9	5700	-0.3878
5-2	-4.55353	0.00359	0.7481	1/7	8.90**			
5-2	-17.06473	0.00572	0.9589	1/6	68.46***	4	6080	-0.0678
6-1	-3.38862	0.00278	0.8905	1/5	19.15***			
6-1	-2.20701	0.00256	0.8560	1/4	10.97**	4	5780	0.5283
6-2	5.85066	0.00080	0.3628	1/18	2.73*			
6-2	3.10757	0.00120	0.5994	1/6	3.36*	10	6750	-0.0685

1) Estimated mean annual precipitation (Y, in in.) for a given elevation (X, in ft.) is calculated by: $Y = a + b(X)$

2) The regression coefficient, r^2, is ranged from 0.0 to 1.0 which represent the correlation from none to perfect condition.

3) The reduced degree of freedom is due to the deletion of rain cans in 1978.

4) F-value, variance ratio, is used to examine the significant level of correlation and is expressed as the following percentages;

* F-test is not significant at 90% probability.
** F-test is significant at 95% probability.
*** F-test is significant at 99% probability.

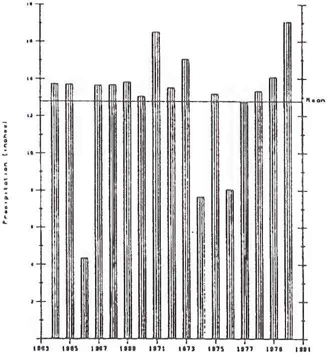

Figure 5-1:
Annual Precipitation Record for
Rock Springs Watershed, Elko District.

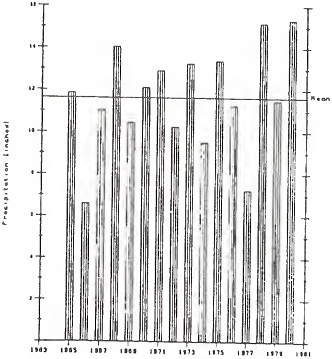

Figure 5-2:
Annual Precipitation Record for
Crane Springs Watershed, Elko District.

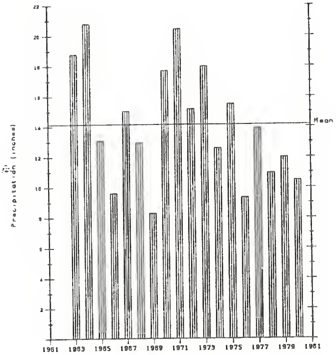

Figure 5-3:
Annual Precipitation Record for
Crowley Creek Watershed, Winnemucca District.

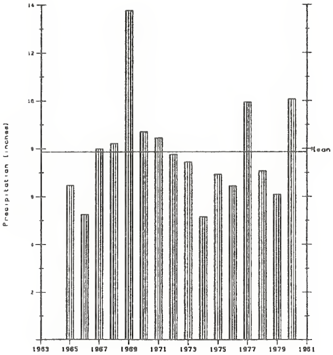

Figure 5-4:
Annual Precipitation Record for
Cow Creek Watershed, Winnemucca District.

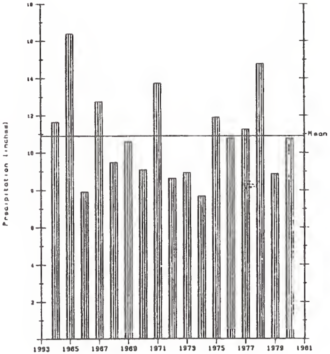

Figure 5-5:
Annual Precipitation Record for
Eastgate Watershed, Carson City District.

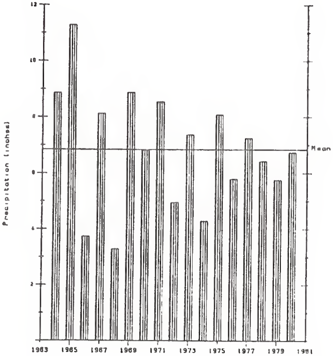

Figure 5-6:
Annual Precipitation Record for
Churchill Canyon Watershed, Carson City District.

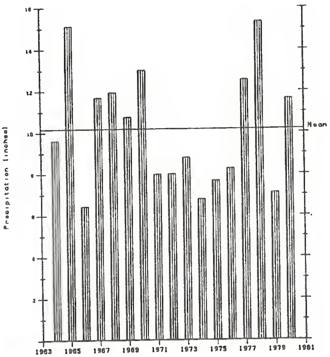

Figure 5-7:
Annual Precipitation Record for
Duckwater Watershed, Ely District.

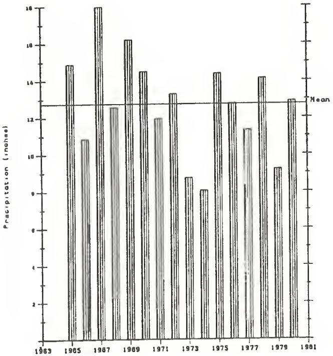

Figure 5-8:
Annual Precipitation Record for
Steptoe Watershed, Ely District.

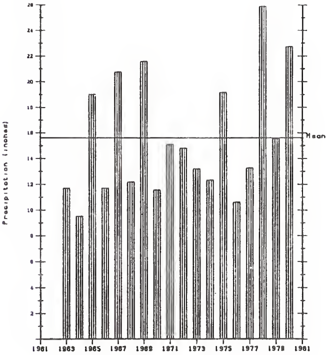

Figure 5-9:
Annual Precipitation Record for
Mathews Canyon Watershed, Las Vegas District.

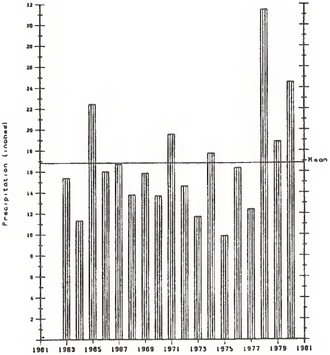

Figure 5-10:
Annual Precipitation Record for
Pine Canyon Watershed, Las Vegas District.

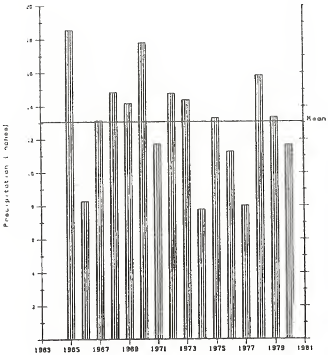

Figure 5-11:
Annual Precipitation Record for
Mill Creek Watershed, Battle Mtn. District.

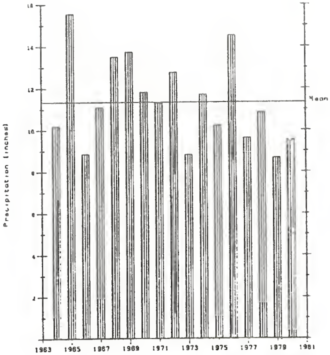

Figure 5-12:
Annual Precipitation Record for
Coils Creek Watershed, Battle Mtn. District.

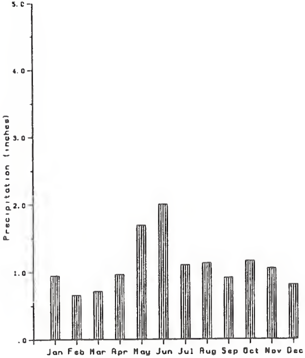

Figure 5-13:
Monthly Precipitation Record for
Rock Springs Watershed, Elko District.

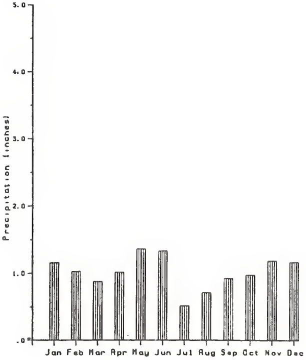

Figure 5-14:
Monthly Precipitation Record for
Crane Springs Watershed, Elko District.

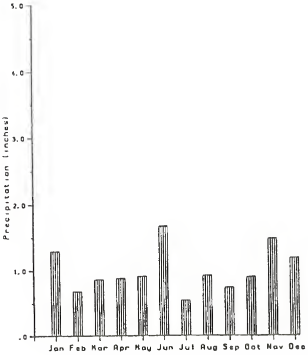

Figure 5-15:
Monthly Precipitation Record for
Crowley Creek Watershed, Winnemucca Dist.

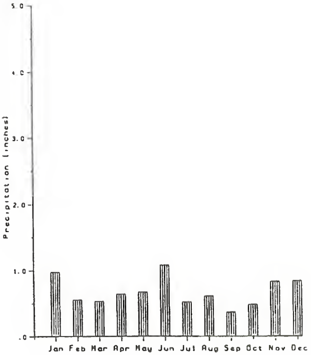

Figure 5-16:
Monthly Precipitation Record for
Cow Creek Watershed, Winnemucca District.

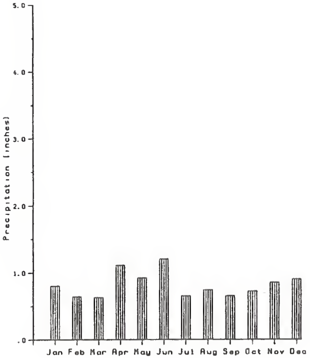

Figure 5-17:
Monthly Precipitation Record for
Eastgate Watershed, Carson City District.

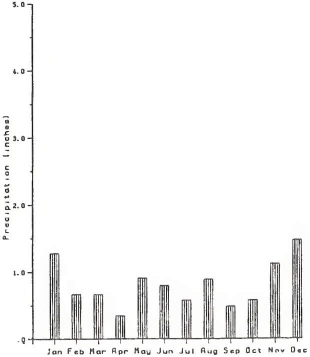

Figure 5-18:
Monthly Precipitation Record for
Churchill Canyon Watershed, Carson City District.

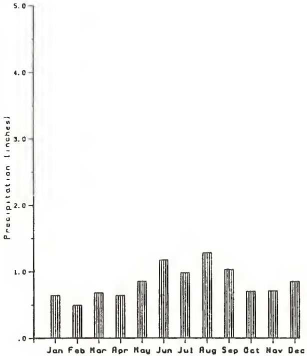

Figure 5-19:
Monthly Precipitation Record for
Duckwater Watershed, Ely District.

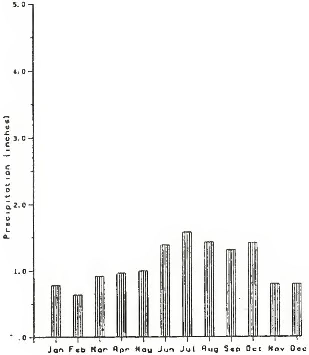

Figure 5-20:
Monthly Precipitation Record for
Steptoe Watershed, Ely District.

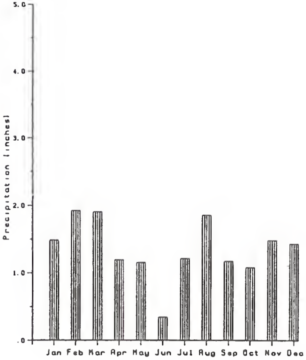

Figure 5-21:
Monthly Precipitation Record for
Mathews Canyon Watershed, Las Vegas Dist.

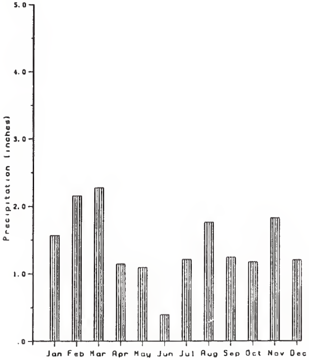

Figure 5-22:
Monthly Precipitation Record for
Pine Canyon Watershed, Las Vegas District.

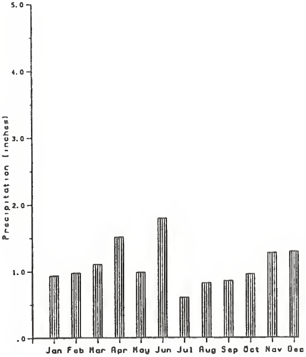

Figure 5-23:
Monthly Precipitation Record for
Mill Creek Watershed, Battle Mtn. District.

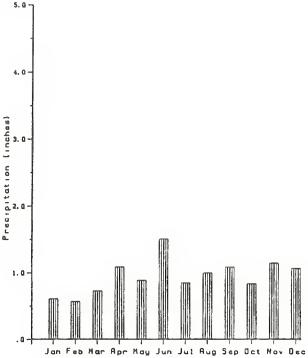

Figure 5-24:
Monthly Precipitation Record for
Coils Creek Watershed, Battle Mtn. District.

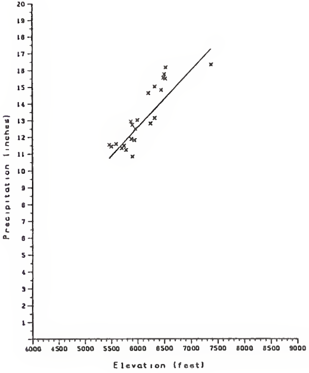

Figure 5-25:
Orographic Lifting for
Rock Springs Watershed, Elko District.

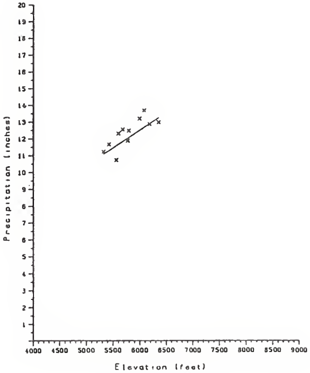

Figure 5-26:
Orographic Lifting for
Crane Springs Watershed, Elko District.

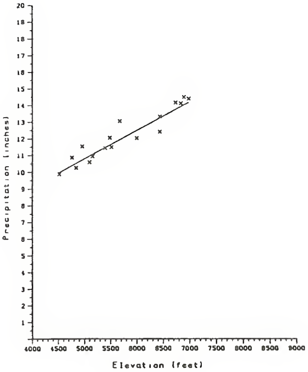

Figure 5-27:
Orographic Lifting for
Crowley Creek Watershed, Winnemucca Dist.

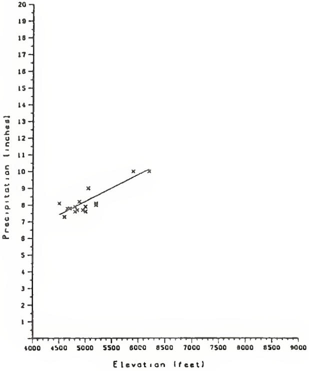

Figure 5-28:
Orographic Lifting for
Cow Creek Watershed, Winnemucca District.

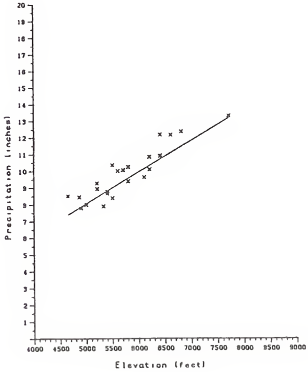

Figure 5-29:
Orographic Lifting for
Eastgate Watershed, Carson City District.

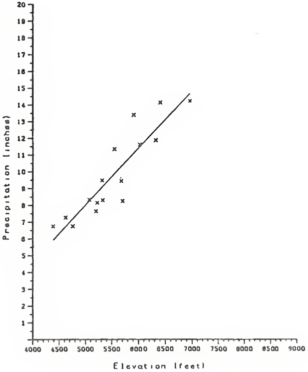

Figure 5-30:
Orographic Lifting for
Churchill Canyon Watershed, Carson City Dist.

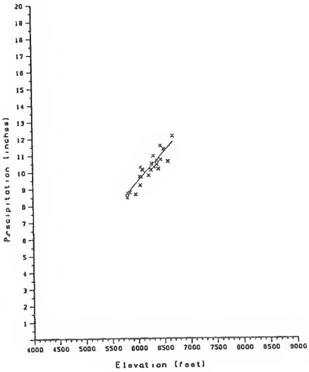

Figure 5-31:
Orographic Lifting for
Duckwater Watershed, Ely District.

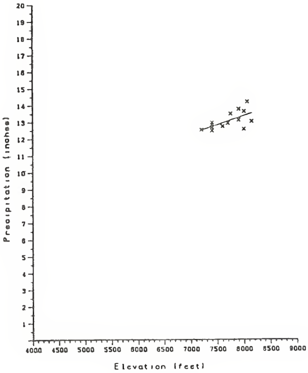

Figure 5-32:
Orographic Lifting for
Steptoe Watershed, Ely District.

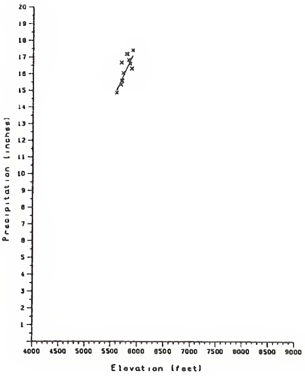

Figure 5-33:
Orographic Lifting for
Mathews Canyon Watershed, Las Vegas Dist.

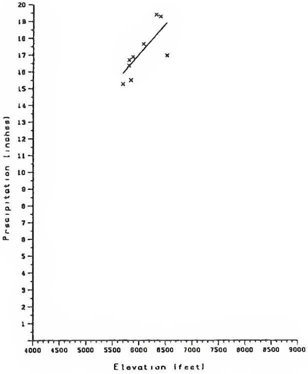

Figure 5-34:
Orographic Lifting for
Pine Canyon Watershed, Las Vegas District.

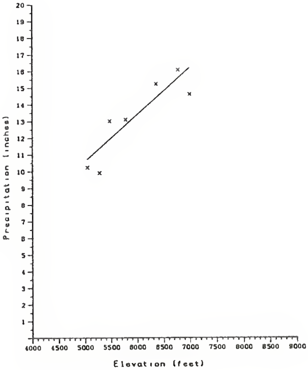

Figure 5-35:
Orographic Lifting for
Mill Creek Watershed, Battle Mtn. District.

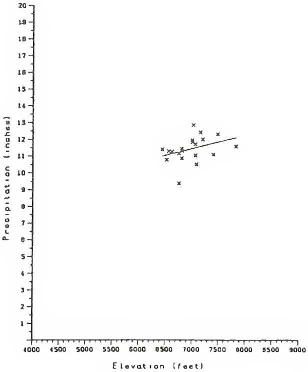

Figure 5-36:
Orographic Lifting for
Coils Creek Watershed, Battle Mtn. District.

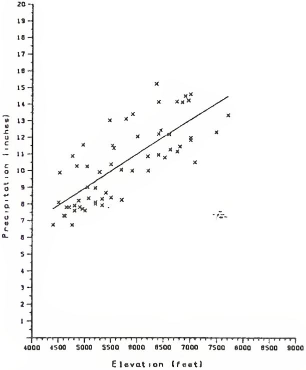

Figure 5-37:
Orographic Lifting for
Northern 6 Watersheds
(Rock Springs, Crane Springs, Crowley
Creek, Cow Creek, Mill Creek, and
Coils Creek) of Nevada.

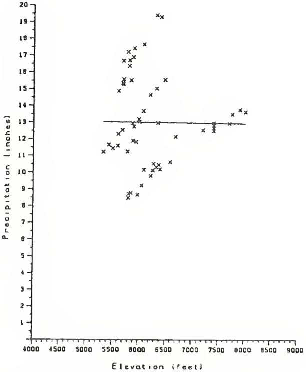

Figure 5-38:
Orographic Lifting for
Southern 6 Watersheds
(Eastgate, Churchill Canyon, Duckwater,
Steptoe, Mathews Canyon, and Pine Canyon)
of Nevada.

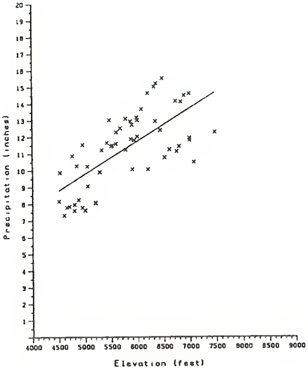

Figure 5-39:
Orographic Lifting for
Western 6 Watersheds
(Crowley Creek, Cow Creek, Eastgate,
Churchill Canyon, Mill Creek, and
Coils Creek) of Nevada.

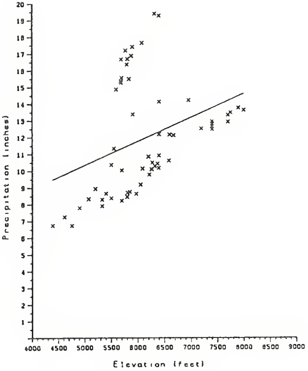

Figure 5-40:
Orographic Lifting for
Eastern 6 Watersheds
(Rock Springs, Crane Springs, Duckwater,
Steptoe, Mathews Canyon, and Pine Canyon)
of Nevada.

5.2.3. The Long-Term Trend/Cycle Analysis.

Moisture comes to Nevada from two main sources, the Pacific and the Gulf of Mexico. Because Northern America lies in the belt of prevailing westerly winds, the moisture moving inland from the Pacific Ocean to Nevada is by far the most important. The Gulf of Mexico acts as a source only in the summer.

The moisture from these sources is recycled in part as the Continental element which is generated through evaporation and recondensation. As a consequence the Continental element, theoretically, may produce more carry-over effect from year-to-year. Evaluation of this concept may be included in future NWS Studies. For example, rain can 12, the representative rain can of the Rock Springs Watershed (1-1) in Table B-1-1, is used to portray the carry-over effect hypothesis. Long-term mean annual precipitation (12.74 inches) is used as a threshold to determine a wet year and a dry year. If "+" and "-" are used to indicate a higher precipitation than long-term mean (wet year) and to indicate a lower precipitation than long-term mean (dry year) respectively, the following carry-over effect can be listed in chronological order as:

Year	1964	'65	'66	'67	'68	'69	'70	'71	'72	'73	'74	'75	'76	'77	'78	'79	'80
Wet Year	+	+		+	+	+	+	+	+	+		+		o	+	+	+
Dry Year			-								-		-	o			

A "o" in 1977 is used to indicate that 1977 annual precipitation is the same as compared to long-term mean. Note that there were two-consecutive wet years (1964 and 1965), one dry year (1966), seven-consecutive wet years (1967 to 1973), one dry year (1974), one wet year (1975), one dry year (1976), one average year (1977), and three-consecutive wet years (1978 to 1980). The above dry and wet year precipitation can also be observed in Figure 5-1. Note that the mean precipitation line passes through the top of the precipitation record in 1977.

Checking other watershed precipitation records in NWS (Figures 5-2 through 5-12), similar carry-over grouping tendencies have been observed. Whether or not the carry-over effects are a small cyclic portion of an extremely long cycle (i.e., geological time span), Table 5-3, cumulative mean percentage (CMP) of long-term precipitation trends for NWS, is intended to explain the question.

CMP is a percentage which cumulates annual precipitation departure from long-term mean annual precipitation, and has been used to determine the cyclic trends of the long-term

Table 5-3,
Cumulative Mean Percentage* of Long-Term Precipitation Trends for Nevada Watershed Studies

Watershed Code**	1-1	1-2	2-1	2-2	3-1	3-2	4-1	4-2	5-1	5-2	6-1	6-2
Representative Rain Can***	12	2	9	10	6	1	4	6	9	4	4	10
Year												
1963			32.83				-19.44		-25.03	- 8.33		
1964	7.41		79.79		6.93		-23.65		-63.89	-40.85		-15.55
1965	14.66	2.09	72.12	-17.62	57.46	68.08	26.90	16.86	-41.89	- 7.32	42.10	22.38
1966	-51.34	-41.07	39.98	-50.75	30.16	23.80	- 8.97	2.01	-66.79	-12.14	5.57	0.97
1967	-44.48	-46.29	46.30	-49.05	47.28	44.94	7.43	43.12	-33.69	-12.98	6.17	- 0.66
1968	-37.46	-25.37	37.77	-44.56	34.39	- 6.03	26.32	41.77	-55.58	-30.93	19.87	19.18
1969	-29.27	-35.58	- 3.70	30.49	31.50	26.28	33.36	68.99	-17.10	-36.64	28.51	41.06
1970	-27.02	-31.35	21.57	41.22	14.93	27.90	62.91	82.87	-42.90	-55.08	64.87	45.91
1971	2.20	-20.15	66.27	48.64	41.05	55.30	42.47	76.73	-46.20	-38.67	54.52	46.14
1972	8.04	-31.91	73.51	47.29	20.17	29.20	22.13	81.11	-51.24	-51.64	67.68	54.98
1973	25.85	-17.78	100.75	42.00	2.23	39.02	9.65	49.78	-66.59	-81.66	77.85	33.31
1974	-14.20	-35.99	89.75	7.60	-27.19	2.94	-22.84	13.12	-87.45	-76.02	37.57	37.27
1975	-10.93	-20.75	99.40	- 4.18	-17.87	24.49	-46.36	26.13	-64.54	-117.10	39.48	27.92
1976	-47.85	-23.91	65.42	-22.18	-18.92	9.91	-64.11	26.43	-96.43	-119.66	25.76	56.81
1977	-48.25	-61.56	63.54	4.31	-15.57	17.94	-39.25	15.43	-111.26	-145.76	-12.76	42.32
1978	-43.82	-30.83	41.02	- 5.69	19.73	13.75	13.40	26.40	-45.30	-58.37	8.59	38.56
1979	-33.60	-32.01	25.85	-28.14	1.24	- 0.43	-15.90	- 1.24	-45.72	-46.07	10.80	15.55
1980	- 0.00	- 0.00	- 0.00	0.00	0.00	- 0.00	0.00	- 0.00	- 0.00	- 0.00	- 0.00	- 0.00

* Cumulative Mean Percentage is defined as the summation of percent departure from mean.

** Refer to Table A of the Appendix for an explanation of the watershed code.

***A rain can station having a nonedge site and a least residual was selected as a representative rain can.

precipitation pattern. If the annual precipitation (Pi, i=1,n) in N years and their mean, M, are known, the CMP can be expressed as:

$$\mathrm{CMP} = \overset{n}{\underset{i=1}{}} \left(\left(\left(Pi/M\right) - 1.0\right) 100\%\right) \text{-------------}(5\text{-}1)$$

With 12.74 inches of long-term mean annual precipitation for Rock Springs Watershed, the 14.66 percent of CMP as shown in Table 5-3 is the summation of 7.41 percent (1964) and 7.24 percent (1965). For a cyclic precipitation trend, the CMP should have a fixed amplitude with a fixed time length. Because of no fixed amplitude and no fixed time length in the CMP results as shown in Table 5-3, the conclusion of no cyclic precipitation trend has been confirmed.

5.3. Precipitation Characteristics

In general, where long-term precipitation records are available, mean annual precipitation is usually considered a reliable characteristic for the area; however, total precipitation data are often not sufficient to form generalized hydrologic conclusions since the water yield to be expected for a watershed is extremely variable and is affected by many variables. Four variables -- precipitation sources, standard deviation, frequency of daily precipitation, and annual deficiency index -- and expected dominant vegetation are used to analyze the precipitation characteristics.

Twelve tables, Tables C-1-1 to C-6-2, are used to explain the precipitation characteristics of the 12 representative rain cans for NWS. The precipitation characteristics are summarized in Table 5-4. The expected dominant vegetation type is used to explain the consequence of such precipitation characteristics on the site.

5.3.1. Precipitation Sources

Large variations in annual precipitation from a representative rain can of various watersheds are shown in the annual SI column of Table 5-4. The precipitation sources from the Pacific Component (PI), the Continental Component (CI), and the Gulf of Mexico Component (GI) are shown in the percentage of annual SI. The magnitude of the Pacific Component show positive function from west to east whereas the Continental Component shows a reverse function. These two components furnish most of the moisture available for plant growth in the Great Basin.

The Gulf Component is active only in the summer months and is highly variable. This relatively high intensity, yet short duration, precipitation of the Gulf Component has minimum benefit to plant growth due to high evaporation in the summer months.

5.3.2. Variability and Standard Deviation of Precipitation

Two basic functions have been clearly concluded to influence precipitation variability: 1) variability increases with aridity, and 2) variability decreases with latitude. The aridity of certain stations is also shown in the magnitude of monthly and annual precipitation records.

Table 5-4 establishes one general relationship between annual precipitation (SI) and variability. That is, within a district the higher the annual SI, the lower the variability. Using Winnemucca District as an example, Crowley Creek Watershed as shown in Code 2-1 of Table 5-4, has a higher annual SI than Cow Creek Watershed, but the variability in Crowley Creek is lower than Cow Creek. This relationship appears in all districts with the exception of Elko District which has a same variability (0.19) for both watersheds.

Table 5-4; Precipitation Characteristics and Expected Dominant Vegetation Type of Nevada Watershed Studies

	Annual SI*1 (in.)	PI*2 (%)	CI*2 (%)	GI*2 (%)	VAR*3	SD*3 (in.)	Frequency (Days per year)			ADI*4	Expected Vegetation*5
							0.01"	0.1"	1.0"		
1-1	12.72	26.22	56.69	17.09	0.19	2.43	90.33	48.97	2.07	0.160	PJ, SB, GW
1-2	11.67	42.30	46.07	11.63	0.19	2.15	89.62	48.94	1.41	0.158	SB
2-1	14.12	44.03	42.37	13.60	0.19	2.65	93.94	51.30	2.53	0.156	SB
2-2	7.97	47.77	35.71	16.52	0.25	2.00	59.72	30.32	1.42	0.226	SB
3-1	10.84	36.00	46.15	17.85	0.28	3.04	64.69	35.16	2.63	0.230	PJ, SB, GW
3-2	7.27	59.32	19.83	20.85	0.33	2.38	48.54	25.00	1.72	0.286	SB, GW
4-1	10.10	27.64	45.03	27.33	0.30	2.97	62.23	33.33	2.49	0.240	PJ, SB
4-2	12.77	22.41	49.17	28.42	0.29	3.61	71.46	39.60	3.55	0.220	PJ, SB, GW
5-1	15.62	35.84	40.81	23.35	0.30	4.62	71.79	42.38	5.32	0.224	PJ, SB, GW
5-2	17.69	34.71	43.31	21.98	0.29	5.06	77.39	46.53	6.18	0.212	CF, MF, PJ
6-1	13.15	36.98	49.59	13.43	0.23	2.94	79.15	43.82	2.89	0.185	PJ, SB, GW
6-2	11.15	27.94	52.56	19.49	0.27	2.92	68.84	37.24	2.55	0.215	PJ, SB, GW

*1 Annual SI is the calculated calendar SI in inches per year.

*2 PI = Moisture source from Pacific Ocean. CI = Moisture recondensation originating from Great Basin. GI=100% - (PI+CI); GI=Moisture source from Gulf of Mexico.

*3 VAR = Variability = $SD/\bar{x}$; SD = Standard Division.

*4 ADI = Annual Deficiency Index = $(VAR/(F0.01/12))^{0.5}$

*5 Expected Vegetation = f (Annual SI and ADI).

Where, Vegetation types are coded as:

CF = Coniferous forest, MF = Mixed forest,
AP = Aspen parkland, OP = Oak parkland,
PJ = Pinyon juniper, SB = Sagebrush,
GW = Greasewood, CB = Creosote brush.

The standard deviation is used to express the dispersion of the precipitation record from the mean, and is calculated as the product of variability with mean precipitation. Therefore there is a higher annual SI in rain can 12 of Rock Springs Watershed (12.72 inches) with a same variability (0.19) results in a higher standard deviation (2.43 inches) than Crane Springs Watershed. Using the monthly standard deviation in Table C-1-1 as an example, January has 0.77 inches deviating from the monthly SI of 0.87 inches. This means January precipitation can vary from 0.87 ± 0.77 inches (or a range of 0.1 inches to 1.64 inches) from year to year.

In the extreme case, variability can have a value of more than 1.0. In such a case, the standard deviation would have a larger value than the monthly SI. For example, the variability of rain can 10 for March in the Cow Creek Watershed (as shown in Table C-2-2) is 1.11, the S.D. is ± .58 inches and the precipitation is .54". Obviously precipitation could not be less than 0.

5.3.3. Frequency of Daily Precipitation

Using the information for mean monthly and annual precipitation and the associated variability, it is possible to tell how wet or dry a location is, and how reliable the precipitation will be during the course of the months or the years. But, this still does not give the full picture of the precipitation patterns.

Notably, effective precipitation is of vital importance in applied hydrology, and hence the frequency of daily precipitation for various intensities should be considered in any complete analysis of precipitation record.

As shown in Table 5-4, the frequency of measureable precipitation intensity (> = 0.01 inches) ranges from a minimum of 48.54 days in Churchill Canyon (Code 3-2) to a maximum of 90.33 days in Rock Springs (Code 1-1). Yet, the frequency for greater or equal to 1.0 inch ranges from a minimum of 1.42 days in Cow Creek (Code 2-2) to a maximum of 6.18 days in Pine Canyon (Code 5-2).

Rains equal to or greater than 1.00" occur .77 days in Pine Canyon. This shows the Gulf Component is most active to the south and its effects diminish to the north.

Most of the Great Basin has a minimum summer rainfall associated with the lack of cyclonic activity, but it's worthwhile to note that a high frequency (0.77 days) for greater or equal to 1.0 inch has been observed in July (see Table C-5-2). After the high frequency of high intensity precipitation (> = 1.0 inch) in the winter months (0.74 days for December, 0.77 days for January and 0.78 days for February), a high frequency in the Spring months may trigger a flood hazard in Pine Canyon.

5.3.4. Deficiency Index and Expected Dominant Vegetation Type

Effective moisture affects the establishment of dominant vegetation type. The assessment of effective moisture has been based on precipitation, taking into account the factors of annual total, variability and frequency of measurable intensity.

The deficiency index is calculated as a function of variability and frequency of measurable intensity as shown in Table 5-4. Based on the mean annual precipitation and annual deficiency index (ADI), the expected dominant vegetation type can be provided.

As shown in Table 5-4, the vegetation patterns reflect the factors of annual precipitation and deficiency in combination. Hence, most of the Nevada basins have arid or semiarid conditions characterized by sagebrush, pinon juniper woodlands, or greasewood which are observed in all watersheds with the exception of Pine Canyon (Code 5-2). Based solely on these actions the high mountain humid conditions of Pine Canyon would give rise to a true forest vegetation type which includes coniferous forest, mixed forest, and pinyon juniper.

5.4. Catchment Size and Tank Volume for Stockwater Application

Twelve tables, Tables D-11 to D-6-2, are used to reveal the result of catchment size and tank volume for NWS. Because of the wide variation of annual deficiency index, the recommended case of precipitation ranges from case 2 to case 4. As a result, the effective annual precipitation decreases from a minimum of 3.86 inches in Churchill Canyon to a maximum of 13.05 inches in Pine Canyon. All the calculated catchment size and tank volume are based on the water demand of 200 head cattle and 10 head of wild horses as shown in Table 5-5.

5.4.1. Catchment Area

Annual water demand and effective annual precipitation are the only two factors used to calculate catchment area (square feet). Because the annual water demands are all the same for the 12 watersheds, the catchment areas have the exactly reverse order of effective annual precipitation. From Table 5-5, the smallest catchment area is 73,003 square feet of Pine Canyon (the highest effective annual precipitation watershed), and the largest catchment area is 246,954 square feet of Churchill Canyon. Various alternatives can be done to adjust the catchment area.

5.4.2. Tank Size

In order to have one month carry-over water demand, the tank volume ranges from a minimum of 288,374 gallons in Steptoe to a maximum of 379,762 gallons in Crane Springs. With an effective annual precipitation of 8.56 inches, Steptoe needs a surprisingly high storage tank volume. The distribution of monthly precipitation in Steptoe causes such a high tank volume because in the months of late summer and early fall, high water demand months, the monthly precipitations are substantially lower than the monthly precipitation of other seasons.

The design of the catchment and storage tank is based on volume of expected precipitation and seasonal water demand by livestock. The program (AQUATANK) will provide optional catchment size and storage for any combination of the above factors.

The program will also evaluate the effects of changing any or all of the design factors:

1) Increase or decrease in precipitation.
2) Longer or shorter use period.
3) More or less number of livestock.
4) Increase or decrease in recommended storage.
5) Increase or decrease in catchment sizes.

Table 5-5, Catchment Size and Tank Volume
of Recommended Effective Annual Precipitation
for Nevada Watershed Studies (NWS).

Watershed Code	Annual Variability (VAR*[1])	Measurable Frequency (MF*[2])	Annual Deficiency Index (ADI*[3])	Recom-mended Case (RC*[4])	Effective Annual Prec. (in.) (EAP*[5])	Catchment Size (ft.^{2}) (CA*[6])	Tank Volume (Gallons) (TV*[7])
1-1	0.19	90.33	0.17	2	9.4624	100695	294181
1-2	0.19	89.62	0.17	2	8.5571	111348	379762
2-1	0.19	93.94	0.16	2	10.6697	89301	316473
2-2	0.25	59.72	0.24	3	5.1934	183470	319450
3-1	0.28	64.69	0.23	3	7.4805	127374	340986
3-2	0.33	48.54	0.29	4	3.8583	246954	348490
4-1	0.30	62.23	0.24	3	6.7981	140161	300618
4-2	0.29	71.46	0.22	3	9.0765	104976	288374
5-1	0.30	71.79	0.23	3	11.1982	85085	359499
5-2	0.29	77.39	0.22	3	13.0516	73003	364878
6-1	0.23	79.15	0.19	2	9.9702	95565	360999
6-2	0.27	68.84	0.22	3	7.8276	121726	318520

*[1] VAR = S.D./$\bar{x}$

*[2] MF is defined as the frequency of precipitation intensity which is greater or equal to 0.01 inches.

*[3] ADI = (VAR/MF/12) xx 0.5.

*[4] RC = RC1 -- (ADI < 0.15), RC2 -- (ADI=0.15 to < 0.20), ---, RC5 -- (ADI >, 0.30).

*[5] EAP = 90% of long-term normal precipitation at RC.

*[6] CA = Catchment size at RC to produce 594000 gallons of annual water yield to water 200 head of cattle at 15 gallons/day from May to October and to water 10 head of wild horses at 15 gallons/day 12 months per year.

*[7] TV = Tank volume for one month carry over water demand.

TABLE A-1-1; SUMMARY OF MEAN MONTHLY AND ANNUAL PRECIPITATION RECORD, ROCK SPRINGS WATERSHED, ELKO DISTRICT, NEVADA WATERSHED STUDIES.

CAN	ELEVATION						MONTH (INCHES)							TOTAL
NO.	(FT.)	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
1	5500	0.84	0.60	0.63	0.86	1.53	1.70	0.91	0.97	0.85	0.97	0.89	0.69	11.45
2	5740	0.74	0.48	0.60	0.88	1.39	1.84	1.01	1.00	0.76	1.04	0.98	0.76	11.50
3	5900	0.70	0.44	0.55	0.80	1.29	1.80	0.95	0.93	0.70	0.99	0.93	0.74	10.84
4	6320	0.87	0.56	0.68	0.97	1.52	2.15	1.15	1.16	0.85	1.22	1.13	0.89	13.15
5	6480	1.15	0.82	0.84	1.13	2.07	2.35	1.21	1.36	1.13	1.29	1.23	0.96	15.54
6	6600	0.99	0.70	0.74	0.94	1.76	1.95	1.02	1.09	0.95	1.09	1.01	0.78	13.02
7	5780	0.83	0.58	0.62	0.82	1.51	1.68	0.90	0.94	0.83	0.94	0.89	0.69	11.24
8	6240	0.85	0.56	0.67	0.98	1.52	2.05	1.17	1.16	0.83	1.17	1.06	0.80	12.82
9	6520	1.02	0.65	0.78	1.17	1.84	2.56	1.35	1.37	1.00	1.39	1.31	1.05	15.50
10	7380	1.08	0.69	0.85	1.23	1.92	2.75	1.43	1.41	1.05	1.48	1.36	1.09	16.34
11	5700	0.76	0.49	0.59	0.88	1.32	1.75	1.05	1.04	0.72	1.06	0.95	0.73	11.34
12	5900	0.93	0.67	0.71	0.94	1.75	1.94	1.03	1.06	0.92	1.04	0.98	0.76	12.74
13	6200	1.09	0.78	0.82	1.06	2.00	2.21	1.18	1.21	1.06	1.22	1.13	0.89	14.64
14	6500	1.07	0.68	0.81	1.21	1.85	2.60	1.32	1.38	0.99	1.45	1.33	1.07	15.77
15	6320	1.13	0.80	0.84	1.10	2.05	2.26	1.20	1.27	1.07	1.25	1.16	0.90	15.03
16	5870	0.97	0.67	0.72	0.94	1.79	1.99	1.01	1.08	0.93	1.07	1.00	0.77	12.94
17	5880	0.89	0.63	0.66	0.87	1.66	1.74	0.97	0.99	0.87	0.99	0.91	0.71	11.89
18	5960	0.84	0.53	0.65	0.95	1.48	2.05	1.10	1.08	0.80	1.14	1.06	0.85	12.51
19	5940	0.87	0.61	0.66	0.86	1.57	1.76	0.95	1.01	0.86	1.00	0.94	0.73	11.82
20	5590	0.85	0.60	0.65	0.87	1.58	1.70	0.94	0.97	0.86	0.97	0.91	0.70	11.60
21	5460	0.99	0.73	0.65	0.87	1.61	1.42	0.87	0.97	0.81	1.16	0.91	0.56	11.55
22	6520	1.28	0.96	0.99	1.09	2.16	2.03	1.43	1.40	1.21	1.54	1.24	0.86	16.18
23	6440	1.19	0.90	0.90	0.98	1.91	1.88	1.32	1.33	1.11	1.43	1.13	0.77	14.83
MEAN;CANS 1-23		0.95	0.66	0.72	0.97	1.70	2.01	1.11	1.14	0.92	1.17	1.06	0.82	13.23

TABLE A-1-2; SUMMARY OF MEAN MONTHLY AND ANNUAL PRECIPITATION RECORD, CRANE SPRINGS WATERSHED, ELKO DISTRICT, NEVADA WATERSHED STUDIES.

CAN NO.	ELEVATION (FT.)	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
1	5320	1.03	0.88	0.81	0.99	1.36	1.25	0.48	0.66	0.79	0.82	0.99	1.16	11.22
2	5420	1.16	1.00	0.87	0.97	1.29	1.21	0.50	0.65	0.94	0.90	1.09	1.08	11.66
3	5560	0.95	0.88	0.74	0.88	1.16	1.28	0.44	0.67	0.74	0.87	1.08	1.04	10.73
4	5770	1.04	0.96	0.80	0.97	1.27	1.41	0.48	0.75	0.81	0.99	1.21	1.17	11.87
5	5600	1.20	1.05	0.89	1.00	1.37	1.28	0.52	0.70	0.97	0.97	1.17	1.17	12.30
6	5680	1.23	1.06	0.91	1.03	1.41	1.29	0.54	0.71	1.00	0.98	1.20	1.17	12.54
7	6080	1.35	1.17	1.02	1.13	1.54	1.42	0.59	0.75	1.10	1.07	1.29	1.26	13.68
8	5790	1.10	1.01	0.84	1.02	1.34	1.46	0.51	0.79	0.88	1.04	1.26	1.23	12.47
9	5990	1.29	1.12	0.96	1.08	1.49	1.37	0.57	0.74	1.05	1.05	1.25	1.22	13.18
10	6180	1.13	1.05	0.87	1.06	1.40	1.49	0.52	0.80	0.90	1.06	1.31	1.26	12.85
11	6350	1.28	1.12	0.95	1.06	1.49	1.33	0.56	0.71	1.04	1.03	1.22	1.16	12.96
MEAN;CANS 1-11		1.16	1.03	0.88	1.02	1.37	1.34	0.52	0.72	0.93	0.98	1.19	1.17	12.31

TABLE A-2-2; SUMMARY OF MEAN MONTHLY AND ANNUAL PRECIPITATION RECORD, COW CREEK WATERSHED, WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

CAN	ELEVATION						MONTH (INCHES)							TOTAL
NO.	(FT.)	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
1	4500	0.97	0.52	0.49	0.61	0.82	1.11	0.42	0.54	0.34	0.60	0.90	0.82	8.16
2	4600	0.88	0.50	0.48	0.58	0.58	0.98	0.48	0.57	0.34	0.44	0.74	0.75	7.32
3	4650	0.94	0.54	0.51	0.64	0.61	1.03	0.51	0.61	0.37	0.46	0.78	0.80	7.80
4	5200	0.98	0.56	0.53	0.64	0.67	1.07	0.53	0.62	0.37	0.47	0.82	0.83	8.10
5	4800	0.93	0.54	0.49	0.58	0.64	1.00	0.50	0.59	0.34	0.44	0.76	0.78	7.61
6	4700	0.97	0.57	0.52	0.63	0.64	0.99	0.51	0.60	0.38	0.46	0.78	0.81	7.86
7	5000	0.92	0.54	0.50	0.61	0.62	1.00	0.48	0.57	0.34	0.45	0.80	0.80	7.63
8	4950	0.94	0.54	0.52	0.63	0.60	1.01	0.51	0.59	0.36	0.47	0.80	0.82	7.79
9	5050	1.08	0.64	0.63	0.78	0.71	1.10	0.61	0.71	0.46	0.54	0.89	0.90	9.07
10	4800	0.98	0.57	0.52	0.61	0.66	1.07	0.51	0.58	0.36	0.47	0.81	0.82	7.97
11	4840	0.88	0.48	0.45	0.51	0.65	1.17	0.52	0.60	0.27	0.49	0.83	0.86	7.71
12	4880	0.97	0.57	0.57	0.70	0.68	1.04	0.56	0.62	0.40	0.48	0.85	0.84	8.26
13	5000	0.91	0.50	0.47	0.52	0.68	1.21	0.54	0.61	0.27	0.49	0.87	0.91	7.98
15	5200	0.98	0.55	0.55	0.66	0.64	1.05	0.54	0.60	0.38	0.47	0.81	0.83	8.06
16	5900	1.18	0.68	0.69	0.85	0.83	1.33	0.66	0.78	0.50	0.59	1.00	0.98	10.07
17	6200	1.19	0.70	0.70	0.85	0.82	1.30	0.66	0.76	0.49	0.59	1.02	0.98	10.08
MEAN;CANS 1-16		0.98	0.56	0.54	0.65	0.68	1.09	0.53	0.62	0.37	0.49	0.84	0.85	8.22

TABLE A-3-1; SUMMARY OF MEAN MONTHLY AND ANNUAL PRECIPITATION RECORD, EASTGATE WATERSHED, CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

CAN NO.	ELEVATION (FT.)	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
1	4900	0.63	0.52	0.52	0.90	0.71	0.87	0.56	0.60	0.60	0.53	0.67	0.70	7.81
2	5325	0.66	0.52	0.52	0.90	0.75	0.88	0.57	0.61	0.59	0.53	0.68	0.70	7.92
3	5500	0.71	0.53	0.56	0.97	0.81	0.92	0.62	0.65	0.64	0.56	0.71	0.73	8.39
4	5200	0.75	0.57	0.60	1.01	0.88	0.96	0.64	0.70	0.67	0.61	0.77	0.78	8.95
5	5400	0.72	0.55	0.57	1.00	0.81	0.98	0.62	0.68	0.66	0.60	0.73	0.78	8.67
6	6200	0.90	0.68	0.71	1.24	1.06	1.24	0.75	0.82	0.79	0.75	0.94	0.96	10.84
7	6400	0.81	0.68	0.64	1.26	0.97	1.48	0.67	0.81	0.64	0.86	0.97	1.08	10.89
8	5800	0.71	0.59	0.55	1.08	0.86	1.33	0.56	0.70	0.53	0.73	0.82	0.94	9.39
9	6200	0.74	0.62	0.58	1.19	0.93	1.40	0.60	0.76	0.58	0.80	0.90	0.99	10.10
10	5400	0.65	0.56	0.51	1.03	0.79	1.21	0.55	0.67	0.49	0.69	0.79	0.87	8.78
11	6800	0.94	0.78	0.71	1.45	1.12	1.73	0.73	0.92	0.68	0.97	1.11	1.24	12.38
12	5800	0.78	0.68	0.59	1.21	0.92	1.41	0.63	0.76	0.55	0.77	0.91	1.02	10.25
13	6400	1.01	0.80	0.80	1.37	1.16	1.42	0.82	0.90	0.85	0.88	1.07	1.11	12.19
14	5500	0.85	0.69	0.68	1.18	0.96	1.18	0.72	0.79	0.75	0.73	0.91	0.94	10.37
15	7700	1.10	0.87	0.86	1.50	1.28	1.54	0.91	1.00	0.90	0.96	1.18	1.21	13.33
16	6600	1.07	0.83	0.82	1.39	1.17	1.41	0.84	0.91	0.83	0.81	1.04	1.05	12.17
17	6400	0.94	0.75	0.74	1.21	1.04	1.27	0.73	0.80	0.78	0.80	0.93	0.95	10.94
18	6200	0.92	0.73	0.72	1.20	1.05	1.26	0.73	0.81	0.75	0.80	0.94	0.96	10.87
19	5700	0.85	0.63	0.67	1.12	1.01	1.13	0.69	0.77	0.71	0.71	0.86	0.89	10.05
20	5600	0.78	0.65	0.59	1.16	0.90	1.38	0.60	0.74	0.56	0.78	0.88	0.98	10.02
21	5200	0.72	0.61	0.54	1.08	0.85	1.32	0.56	0.69	0.50	0.69	0.79	0.91	9.27
22	5000	0.60	0.51	0.47	0.94	0.73	1.11	0.50	0.60	0.45	0.61	0.69	0.78	8.00
23	4870	0.79	0.64	0.60	0.93	0.77	0.92	0.63	0.62	0.59	0.61	0.71	0.65	8.46
24	4650	0.67	0.65	0.70	0.76	0.78	0.89	0.58	0.71	0.74	0.69	0.68	0.69	8.52
25	6100	0.89	0.70	0.69	1.02	0.91	1.05	0.71	0.72	0.66	0.73	0.81	0.74	9.64
MEAN;CANS 1-25		0.81	0.65	0.64	1.12	0.93	1.21	0.66	0.75	0.66	0.73	0.86	0.91	9.93

TABLE A-3-2; SUMMARY OF MEAN MONTHLY AND ANNUAL PRECIPITATION RECORD, CHURCHILL CANYON WATERSHED, CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

CAN NO.	ELEVATION (FT.)	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
1	4620	0.90	0.57	0.56	0.18	0.70	0.52	0.44	0.72	0.39	0.29	0.72	0.87	6.84
2	4760	0.81	0.45	0.48	0.25	0.57	0.48	0.38	0.58	0.37	0.37	0.70	0.93	6.35
3	4390	0.86	0.52	0.49	0.17	0.66	0.49	0.41	0.65	0.36	0.28	0.66	0.82	6.36
4	5070	1.01	0.55	0.56	0.30	0.71	0.64	0.46	0.71	0.41	0.44	0.88	1.18	7.85
5	5700	0.99	0.56	0.56	0.30	0.71	0.61	0.47	0.68	0.39	0.44	0.89	1.17	7.76
6	5330	1.04	0.56	0.53	0.28	0.72	0.63	0.48	0.69	0.38	0.44	0.88	1.19	7.82
7	5680	1.11	0.59	0.56	0.31	0.85	0.78	0.53	0.78	0.37	0.52	1.05	1.34	8.78
8	5550	1.41	0.73	0.74	0.40	0.90	0.84	0.63	0.94	0.56	0.66	1.25	1.60	10.68
9	5910	1.63	0.84	0.88	0.46	1.11	1.00	0.74	1.13	0.67	0.77	1.47	1.91	12.60
10	6400	1.76	0.88	0.88	0.48	1.19	1.06	0.77	1.18	0.69	0.87	1.50	2.04	13.31
11	6960	1.81	0.87	0.91	0.49	1.16	1.03	0.79	1.23	0.73	0.86	1.52	2.01	13.39
12	6020	1.39	0.70	0.68	0.37	1.04	0.95	0.64	0.96	0.49	0.71	1.23	1.64	10.79
13	6320	1.48	0.72	0.70	0.38	1.01	0.94	0.64	1.01	0.52	0.70	1.26	1.66	11.03
14	5320	1.13	0.59	0.59	0.33	0.90	0.75	0.50	0.79	0.37	0.51	1.00	1.37	8.82
15	5200	0.88	0.46	0.45	0.26	0.72	0.62	0.41	0.64	0.32	0.43	0.84	1.09	7.10
16	5220	0.98	0.46	0.46	0.25	0.77	0.70	0.45	0.67	0.30	0.41	0.94	1.19	7.58
MEAN;CANS 1-16		1.20	0.63	0.63	0.33	0.86	0.75	0.55	0.83	0.46	0.54	1.05	1.37	9.19

TABLE A-4-1; SUMMARY OF MEAN MONTHLY AND ANNUAL PRECIPITATION RECORD, DUCKWATER WATERSHED, ELY DISTRICT, NEVADA WATERSHED STUDIES.

CAN	ELEVATION						MONTH (INCHES)							TOTAL
NO.	(FT.)	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
1	6395	0.65	0.50	0.74	0.64	0.91	1.16	1.00	1.27	1.04	0.71	0.72	0.83	10.18
2	6585	0.68	0.53	0.74	0.67	0.95	1.24	1.03	1.31	1.10	0.75	0.76	0.87	10.62
3	6445	0.70	0.51	0.71	0.71	0.81	1.35	0.96	1.42	1.05	0.80	0.78	0.92	10.73
4	6265	0.65	0.50	0.72	0.64	0.91	1.14	1.01	1.25	1.04	0.70	0.72	0.83	10.11
5	6305	0.70	0.50	0.73	0.74	0.85	1.36	1.02	1.45	1.09	0.77	0.79	0.95	10.95
6	6110	0.66	0.47	0.69	0.69	0.77	1.24	0.91	1.33	1.01	0.72	0.73	0.88	10.10
7	6040	0.63	0.45	0.65	0.67	0.76	1.20	0.87	1.26	0.99	0.71	0.69	0.85	9.73
8	6075	0.63	0.46	0.65	0.65	0.74	1.21	0.87	1.25	0.99	0.70	0.70	0.83	9.69
9	5805	0.56	0.44	0.65	0.53	0.77	0.98	0.88	1.07	0.91	0.61	0.62	0.70	8.73
10	5800	0.47	0.43	0.49	0.39	0.77	0.73	1.07	1.16	1.08	0.76	0.46	0.66	8.47
11	5850	0.56	0.45	0.63	0.52	0.80	0.95	0.90	1.06	0.95	0.60	0.61	0.72	8.77
12	5970	0.56	0.46	0.62	0.53	0.79	0.96	0.87	1.07	0.90	0.58	0.62	0.72	8.66
13	6050	0.58	0.47	0.65	0.58	0.85	1.02	0.92	1.17	0.93	0.61	0.67	0.77	9.21
14	6250	0.63	0.50	0.72	0.63	0.89	1.15	1.03	1.28	1.05	0.67	0.72	0.83	10.12
15	6440	0.75	0.54	0.77	0.78	0.87	1.43	1.07	1.52	1.11	0.84	0.85	1.02	11.55
16	6675	0.77	0.59	0.85	0.79	1.09	1.41	1.18	1.53	1.21	0.82	0.86	1.03	12.13
17	6500	0.73	0.53	0.75	0.77	0.87	1.38	1.07	1.52	1.08	0.79	0.85	1.02	11.36
18	6370	0.66	0.51	0.73	0.67	0.94	1.17	1.07	1.32	1.07	0.69	0.74	0.87	10.44
19	6215	0.62	0.50	0.68	0.62	0.88	1.08	0.98	1.23	1.02	0.65	0.70	0.83	9.79
20	6320	0.65	0.52	0.70	0.65	0.93	1.20	1.01	1.26	1.07	0.70	0.74	0.86	10.29
21	6375	0.68	0.50	0.69	0.75	0.84	1.37	0.97	1.38	1.06	0.75	0.76	0.93	10.68
22	6060	0.68	0.50	0.68	0.68	0.77	1.29	0.92	1.34	1.00	0.76	0.75	0.90	10.27
23	6270	0.68	0.54	0.73	0.65	0.95	1.20	1.02	1.29	1.09	0.73	0.75	0.88	10.51
24	6090	0.64	0.50	0.71	0.66	0.93	1.17	1.03	1.24	1.10	0.66	0.70	0.82	10.15
MEAN;CANS 1-24		0.65	0.50	0.69	0.65	0.86	1.18	0.99	1.29	1.04	0.71	0.72	0.86	10.14

TABLE A-4-2; SUMMARY OF MEAN MONTHLY AND ANNUAL PRECIPITATION RECORD, STEPTOE WATERSHED, ELY DISTRICT, NEVADA WATERSHED STUDIES.

CAN	ELEVATION						MONTH (INCHES)							TOTAL
NO.	(FT.)	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
1	7200	0.62	0.75	0.79	0.85	0.97	1.46	1.49	1.19	1.36	1.18	0.98	0.89	12.53
2	7400	0.74	0.64	0.89	0.92	0.96	1.40	1.49	1.36	1.34	1.33	0.79	0.81	12.66
3	7400	0.76	0.66	0.93	0.97	1.02	1.33	1.52	1.43	1.31	1.40	0.80	0.83	12.96
4	7750	0.78	0.67	0.94	1.01	1.04	1.44	1.60	1.49	1.41	1.41	0.84	0.87	13.48
5	7600	0.73	0.52	0.90	0.97	0.94	1.43	1.56	1.45	1.32	1.35	0.78	0.79	12.73
6	7400	0.75	0.63	0.91	0.97	0.98	1.39	1.51	1.43	1.29	1.33	0.78	0.81	12.80
7	8000	0.73	0.51	0.88	0.97	0.93	1.40	1.53	1.44	1.32	1.31	0.76	0.81	12.57
8	7400	0.74	0.61	0.88	0.93	0.96	1.34	1.48	1.38	1.28	1.31	0.77	0.80	12.48
9	7700	0.77	0.63	0.89	0.94	1.01	1.41	1.53	1.46	1.30	1.35	0.81	0.83	12.92
10	7900	0.83	0.67	0.94	1.00	1.04	1.47	1.65	1.54	1.39	1.46	0.86	0.90	13.76
11	8000	0.82	0.66	0.93	1.00	1.05	1.48	1.63	1.54	1.36	1.44	0.85	0.87	13.62
12	7900	0.75	0.52	0.89	1.00	0.97	1.47	1.61	1.49	1.37	1.42	0.81	0.81	13.11
13	7400	0.70	0.50	0.86	0.97	0.95	1.41	1.54	1.44	1.38	1.33	0.78	0.81	12.68
14	8150	0.91	0.75	1.03	1.02	1.03	1.13	1.66	1.33	1.15	1.80	0.65	0.56	13.02
15	8060	1.01	0.83	1.13	1.09	1.16	1.24	1.90	1.53	1.12	1.85	0.73	0.62	14.20
MEAN;CANS 1-15		0.78	0.64	0.92	0.97	1.00	1.39	1.58	1.43	1.31	1.42	0.80	0.80	13.03

TABLE A-5-1; SUMMARY OF MEAN MONTHLY AND ANNUAL PRECIPITATION RECORD, MATHEWS CANYON WATERSHED, LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

CAN NO.	ELEVATION (FT.)	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
		MONTH (INCHES)												
1	5600	1.29	1.84	1.90	0.95	1.07	0.33	1.30	1.29	1.33	0.99	1.17	1.42	14.88
2	5700	1.28	1.73	1.75	1.22	1.15	0.35	1.18	1.81	1.15	1.04	1.52	1.43	15.62
3	5850	1.32	1.82	1.83	1.34	1.17	0.38	1.26	1.90	1.24	1.14	1.64	1.57	16.63
4	5680	1.60	1.95	1.93	1.07	1.06	0.30	1.11	1.72	1.05	0.96	1.34	1.26	15.36
5	5720	1.35	1.78	1.74	1.23	1.19	0.37	1.17	1.96	1.17	1.13	1.55	1.43	16.07
6	5800	1.44	1.91	1.83	1.32	1.25	0.40	1.29	2.04	1.27	1.23	1.65	1.56	17.21
7	5820	1.36	1.84	1.83	1.30	1.25	0.41	1.23	2.01	1.21	1.26	1.63	1.54	16.86
8	5880	1.34	1.83	1.79	1.26	1.16	0.36	1.22	1.91	1.18	1.20	1.57	1.51	16.32
9	5700	1.62	1.97	1.95	1.08	1.06	0.32	1.15	1.75	1.08	0.98	1.37	1.26	15.58
10	5690	1.81	2.15	2.05	1.15	1.14	0.32	1.22	1.87	1.11	1.03	1.44	1.38	16.68
11	5780	1.78	2.18	2.13	1.21	1.20	0.33	1.23	1.98	1.15	1.05	1.51	1.47	17.21
12	5900	1.74	2.21	2.19	1.22	1.23	0.34	1.24	2.02	1.18	1.08	1.53	1.44	17.43
MEAN;CANS 1-12		1.49	1.93	1.91	1.20	1.16	0.35	1.22	1.86	1.18	1.09	1.49	1.44	16.32

TABLE A-5-2; SUMMARY OF MEAN MONTHLY AND ANNUAL PRECIPITATION RECORD, PINE CANYON WATERSHED, LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

CAN	ELEVATION						MONTH (INCHES)							TOTAL
NO.	(FT.)	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
1	6520	1.23	2.01	1.94	1.21	1.12	0.43	1.22	1.86	1.35	1.28	1.98	1.35	16.98
2	6400	1.75	2.39	2.54	1.31	1.25	0.44	1.39	2.00	1.44	1.26	2.09	1.45	19.29
3	6320	1.77	2.40	2.51	1.31	1.28	0.44	1.39	2.01	1.44	1.30	2.09	1.46	19.41
4	6080	1.68	2.23	2.34	1.18	1.16	0.41	1.23	1.83	1.25	1.22	1.88	1.23	17.56
5	5880	1.60	2.19	2.32	1.13	1.02	0.38	1.19	1.72	1.24	1.11	1.80	1.19	16.89
6	5810	1.59	2.14	2.34	1.11	1.07	0.38	1.18	1.70	1.19	1.12	1.75	1.12	16.71
7	5800	1.56	2.11	2.22	1.09	1.07	0.39	1.16	1.68	1.18	1.12	1.71	1.08	16.38
8	5840	1.50	2.01	2.15	0.98	0.98	0.36	1.12	1.59	1.08	1.12	1.60	1.02	15.51
9	5690	1.49	1.97	2.12	1.01	0.98	0.35	1.09	1.56	1.04	1.07	1.59	1.01	15.28
MEAN;CANS 1- 9		1.57	2.16	2.28	1.15	1.10	0.40	1.22	1.77	1.25	1.18	1.83	1.21	17.12

TABLE A-6-1; SUMMARY OF MEAN MONTHLY AND ANNUAL PRECIPITATION RECORD, MILL CREEK WATERSHED, BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

CAN NO.	ELEVATION (FT.)	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
1	5040	0.70	0.82	0.87	1.19	0.82	1.59	0.45	0.58	0.56	0.72	0.97	0.97	10.24
2	5280	0.72	0.76	0.88	1.15	0.70	1.32	0.45	0.63	0.68	0.73	0.92	0.96	9.91
3	5470	0.94	0.97	1.13	1.50	0.98	1.71	0.62	0.86	0.89	0.93	1.25	1.26	13.02
4	5780	0.96	0.99	1.14	1.52	0.97	1.70	0.63	0.85	0.85	0.95	1.29	1.28	13.11
5	6780	1.03	1.05	1.27	1.88	1.27	2.33	0.73	0.99	1.06	1.15	1.65	1.68	16.08
6	6360	1.12	1.15	1.27	1.71	1.12	2.05	0.72	0.97	0.98	1.12	1.49	1.54	15.23
7	7000	1.08	1.12	1.24	1.66	1.06	1.92	0.70	0.92	0.97	1.10	1.41	1.44	14.62
MEAN;CANS 1- 7		0.94	0.98	1.11	1.52	0.99	1.80	0.61	0.83	0.86	0.96	1.28	1.30	13.17

TABLE A-6-2; SUMMARY OF MEAN MONTHLY AND ANNUAL PRECIPITATION RECORD, COILS CREEK WATERSHED, BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

CAN NO.	ELEVATION (FT.)	MONTH (INCHES)												TOTAL (IN.)
		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
1	6800	0.54	0.51	0.68	1.06	0.82	1.47	0.83	0.91	1.04	0.79	1.12	1.09	10.86
2	6520	0.59	0.56	0.67	1.04	0.87	1.42	0.79	0.96	1.04	0.70	1.12	1.01	10.78
3	7820	0.60	0.55	0.74	1.10	0.87	1.59	0.88	0.99	1.07	0.90	1.16	1.12	11.58
4	7160	0.63	0.57	0.77	1.18	0.94	1.66	0.93	1.08	1.19	0.92	1.29	1.25	12.42
5	6560	0.56	0.53	0.70	1.12	0.88	1.58	0.86	0.95	1.08	0.81	1.12	1.10	11.29
6	6800	0.62	0.59	0.72	1.09	0.89	1.50	0.83	1.02	1.10	0.81	1.19	1.08	11.45
7	7400	0.56	0.51	0.67	1.04	0.86	1.50	0.85	0.99	1.07	0.82	1.13	1.08	11.09
8	6810	0.57	0.54	0.71	1.10	0.87	1.53	0.84	0.97	1.09	0.82	1.13	1.12	11.30
9	6620	0.62	0.58	0.71	1.06	0.91	1.45	0.83	1.00	1.09	0.78	1.16	1.06	11.26
10	6750	0.61	0.57	0.70	1.07	0.89	1.46	0.82	0.98	1.09	0.77	1.15	1.03	11.15
11	7000	0.66	0.62	0.76	1.13	0.96	1.53	0.87	1.08	1.16	0.82	1.25	1.12	11.96
12	6750	0.49	0.45	0.62	0.92	0.73	1.27	0.69	0.78	0.92	0.74	0.86	0.90	9.38
13	7200	0.61	0.57	0.76	1.17	0.92	1.67	0.89	1.01	1.16	0.91	1.16	1.16	11.99
14	7060	0.56	0.52	0.71	1.08	0.85	1.54	0.81	0.92	1.06	0.83	1.07	1.07	11.02
15	7080	0.59	0.55	0.69	1.01	0.85	1.37	0.78	0.91	1.00	0.76	1.04	0.97	10.51
16	7480	0.67	0.63	0.78	1.16	0.98	1.61	0.95	1.06	1.15	0.87	1.29	1.16	12.31
17	7020	0.65	0.61	0.80	1.27	1.00	1.77	0.98	1.09	1.25	0.93	1.28	1.23	12.85
18	7000	0.65	0.61	0.74	1.12	0.96	1.53	0.91	1.06	1.14	0.83	1.21	1.07	11.83
19	7060	0.70	0.70	0.85	1.08	0.84	1.42	0.81	1.11	1.10	1.00	1.17	0.93	11.71
20	6440	0.69	0.69	0.83	1.06	0.82	1.39	0.79	1.07	1.04	0.96	1.13	0.91	11.39
MEAN;CANS 1-20		0.61	0.57	0.73	1.09	0.89	1.51	0.85	1.00	1.09	0.84	1.15	1.07	11.41

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
1	5500														
		1963	0.	0.	0.	0.	0.	0.	0.	0.36	1.34	0.99	1.43	0.72	4.84
		1964	0.84	0.37	0.47	0.75	1.58	3.45	0.19	0.28	0.	0.84	0.65	1.86	11.27
		1965	0.80	0.40	0.	2.21	2.01	1.21	0.80	2.61	1.21	0.20	1.81	1.00	14.27
		1966	0.28	0.46	0.28	0.	0.28	0.74	0.46	0.	0.28	0.18	0.37	0.46	3.78
		1967	0.47	0.	0.93	1.28	2.45	4.20	0.58	0.12	0.82	0.58	0.23	0.35	12.01
		1968	0.47	1.41	0.23	0.35	1.87	1.29	0.35	3.87	0.23	0.47	0.94	0.59	12.07
		1969	0.70	0.60	0.40	0.80	0.	5.17	0.40	0.20	0.89	0.99	0.70	0.99	11.83
		1970	1.71	0.40	0.30	0.50	0.90	2.01	0.80	1.20	0.50	0.90	1.61	0.70	11.54
		1971	0.73	0.49	1.22	1.83	4.65	1.96	0.12	0.98	0.73	0.61	1.10	0.61	15.04
		1972	1.38	0.46	0.23	0.80	0.34	1.49	0.	0.57	1.49	4.48	1.15	0.57	12.98
		1973	0.46	0.34	1.37	0.34	0.68	1.59	2.85	0.68	1.14	0.34	1.82	0.68	12.30
		1974	1.13	0.41	1.03	0.51	0.	0.31	0.51	0.31	0.	2.15	0.21	1.03	7.59
		1975	0.44	0.29	1.03	1.47	0.59	1.18	3.83	0.	0.	2.21	0.88	0.59	12.51
		1976	0.57	0.69	0.23	1.26	0.34	0.57	0.80	1.60	1.49	0.80	0.34	0.	8.70
		1977	0.20	0.30	0.40	0.20	2.91	0.50	2.11	1.10	0.90	0.	0.90	1.00	10.54
		1978	1.16	1.05	1.47	1.58	0.84	0.11	0.74	0.11	2.95	0.	0.63	0.74	11.36
		1979	1.50	1.37	1.00	0.50	1.62	0.87	0.37	2.00	0.50	1.50	0.75	0.12	12.12
		1980	1.45	1.14	0.21	0.31	4.98	2.28	0.62	0.52	0.83	0.21	0.52	0.31	13.38
		MEAN	0.84	0.60	0.63	0.86	1.53	1.70	0.91	0.97	0.85	0.97	0.89	0.69	11.45

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
2	5740														
		1963	0.	0.	0.	0.	0.	0.	0.	0.40	1.49	1.10	1.59	0.80	5.38
		1964	0.87	0.39	0.48	0.77	1.65	3.58	0.19	0.29	0.	0.87	0.68	1.94	11.72
		1965	0.83	0.41	0.	2.28	2.07	1.24	0.83	2.69	1.24	0.21	1.86	1.04	14.70
		1966	0.27	0.46	0.27	0.	0.27	0.73	0.46	0.	0.27	0.18	0.36	0.46	3.74
		1967	0.51	0.	1.03	1.41	2.70	4.63	0.64	0.13	0.90	0.64	0.26	0.39	13.24
		1968	0.46	1.38	0.23	0.34	1.84	1.26	0.34	3.79	0.23	0.46	0.92	0.57	11.82
		1969	0.60	0.51	0.34	0.69	0.	4.46	0.34	0.17	0.77	0.86	0.60	0.86	10.20
		1970	1.85	0.44	0.33	0.55	0.98	2.18	0.87	1.31	0.55	0.98	1.74	0.76	12.54
		1971	0.75	0.50	1.25	1.87	4.74	2.00	0.12	1.00	0.75	0.62	1.12	0.62	15.34
		1972	1.40	0.47	0.23	0.82	0.35	1.52	0.	0.58	1.52	4.55	1.17	0.58	13.17
		1973	0.55	0.41	1.66	0.41	0.83	1.93	3.45	0.83	1.38	0.41	2.21	0.83	14.91
		1974	1.08	0.39	0.99	0.49	0.	0.30	0.49	0.30	0.	2.07	0.20	0.99	7.29
		1975	0.41	0.27	0.96	1.37	0.55	1.10	3.57	0.	0.	2.06	0.82	0.55	11.68
		1976	0.51	0.61	0.20	1.11	0.30	0.51	0.71	1.41	1.31	0.71	0.30	0.	7.68
		1977	0.21	0.32	0.43	0.21	3.10	0.53	2.25	1.18	0.96	0.	0.96	1.07	11.23
		MEAN	0.74	0.48	0.60	0.88	1.39	1.84	1.01	1.00	0.76	1.04	0.98	0.76	11.50

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
3	5900														
		1963	0.	0.	0.	0.	0.	0.	0.	0.41	1.54	1.13	1.65	0.82	5.56
		1964	1.02	0.45	0.57	0.91	1.93	4.20	0.23	0.34	0.	1.02	0.79	2.27	13.72
		1965	0.63	0.31	0.	1.73	1.57	0.94	0.63	2.04	0.94	0.16	1.41	0.79	11.16
		1966	0.23	0.38	0.23	0.	0.23	0.61	0.38	0.	0.23	0.15	0.31	0.38	3.13
		1967	0.46	0.	0.93	1.27	2.43	4.17	0.58	0.12	0.81	0.58	0.23	0.35	11.93
		1968	0.45	1.36	0.23	0.34	1.82	1.25	0.34	3.75	0.23	0.45	0.91	0.57	11.70
		1969	0.63	0.54	0.36	0.73	0.	4.71	0.36	0.18	0.82	0.91	0.63	0.91	10.79
		1970	2.06	0.48	0.36	0.61	1.09	2.42	0.97	1.45	0.61	1.09	1.94	0.85	13.92
		1971	0.60	0.40	1.00	1.50	3.80	1.60	0.10	0.80	0.60	0.50	0.90	0.50	12.30
		1972	1.28	0.43	0.21	0.75	0.32	1.39	0.	0.53	1.39	4.16	1.07	0.53	12.05
		1973	0.47	0.35	1.40	0.35	0.70	1.63	2.91	0.70	1.16	0.35	1.86	0.70	12.58
		1974	0.91	0.33	0.82	0.41	0.	0.25	0.41	0.25	0.	1.73	0.16	0.82	6.10
		1975	0.40	0.27	0.93	1.33	0.53	1.06	3.45	0.	0.	1.99	0.80	0.53	11.27
		1976	0.43	0.52	0.17	0.95	0.26	0.43	0.60	1.20	1.12	0.60	0.26	0.	6.53
		1977	0.22	0.33	0.44	0.22	3.23	0.56	2.34	1.22	1.00	0.	1.00	1.11	11.68
		MEAN	0.70	0.44	0.55	0.80	1.29	1.80	0.95	0.93	0.70	0.99	0.93	0.74	10.84

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
4	6320														
		1963	0.	0.	0.	0.	0.	0.	0.	0.45	1.67	1.23	1.79	0.89	6.03
		1964	1.05	0.46	0.58	0.93	1.98	4.30	0.23	0.35	0.	1.05	0.81	2.32	14.06
		1965	0.85	0.42	0.	2.33	2.12	1.27	0.85	2.76	1.27	0.21	1.91	1.06	15.05
		1966	0.34	0.56	0.34	0.	0.34	0.90	0.56	0.	0.34	0.22	0.45	0.56	4.59
		1967	0.52	0.	1.04	1.44	2.74	4.70	0.65	0.13	0.91	0.65	0.26	0.39	13.45
		1968	0.60	1.80	0.30	0.45	2.40	1.65	0.45	4.96	0.30	0.60	1.20	0.75	15.47
		1969	0.82	0.70	0.47	0.94	0.	6.09	0.47	0.23	1.05	1.17	0.82	1.17	13.93
		1970	2.46	0.58	0.43	0.72	1.30	2.89	1.16	1.73	0.72	1.30	2.31	1.01	16.62
		1971	0.76	0.51	1.26	1.90	4.80	2.02	0.13	1.01	0.76	0.63	1.14	0.63	15.54
		1972	1.57	0.52	0.26	0.91	0.39	1.70	0.	0.65	1.70	5.09	1.30	0.65	14.74
		1973	0.63	0.47	1.89	0.47	0.95	2.21	3.94	0.95	1.58	0.47	2.52	0.95	17.03
		1974	1.49	0.54	1.35	0.67	0.	0.41	0.67	0.41	0.	2.83	0.27	1.35	9.99
		1975	0.45	0.30	1.04	1.49	0.60	1.19	3.87	0.	0.	2.23	0.89	0.60	12.65
		1976	0.56	0.67	0.22	1.23	0.34	0.56	0.79	1.57	1.46	0.79	0.34	0.	8.53
		1977	0.25	0.37	0.49	0.25	3.56	0.61	2.58	1.35	1.10	0.	1.10	1.23	12.88
		MEAN	0.87	0.56	0.68	0.97	1.52	2.15	1.15	1.16	0.85	1.22	1.13	0.89	13.15

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
5	6480														
		1963	0.	0.	0.	0.	0.	0.	0.	0.50	1.89	1.39	2.01	1.01	6.80
		1964	1.36	0.61	0.76	1.21	2.58	5.61	0.30	0.45	0.	1.36	1.06	3.03	18.34
		1965	1.15	0.57	0.	3.15	2.86	1.72	1.15	3.72	1.72	0.29	2.58	1.43	20.33
		1966	0.42	0.70	0.42	0.	0.42	1.12	0.70	0.	0.42	0.28	0.56	0.70	5.72
		1967	0.58	0.	1.17	1.61	3.07	5.26	0.73	0.15	1.02	0.73	0.29	0.44	15.05
		1968	0.66	1.97	0.33	0.49	2.62	1.80	0.49	5.40	0.33	0.66	1.31	0.82	16.87
		1969	0.98	0.84	0.56	1.12	0.	7.30	0.56	0.28	1.26	1.40	0.98	1.40	16.71
		1970	2.62	0.62	0.46	0.77	1.39	3.08	1.23	1.85	0.77	1.39	2.47	1.08	17.72
		1971	0.88	0.59	1.47	2.21	5.59	2.35	0.15	1.18	0.88	0.74	1.32	0.74	18.09
		1972	1.70	0.57	0.28	0.99	0.43	1.85	0.	0.71	1.85	5.54	1.42	0.71	16.05
		1973	0.66	0.49	1.98	0.49	0.99	2.30	4.12	0.99	1.65	0.49	2.63	0.99	17.78
		1974	1.51	0.55	1.37	0.68	0.	0.41	0.68	0.41	0.	2.87	0.27	1.37	10.13
		1975	0.46	0.31	1.08	1.55	0.62	1.24	4.02	0.	0.	2.32	0.93	0.62	13.15
		1976	0.71	0.85	0.28	1.55	0.42	0.71	0.99	1.98	1.84	0.99	0.42	0.	10.74
		1977	0.29	0.44	0.58	0.29	4.22	0.73	3.05	1.60	1.31	0.	1.31	1.45	15.27
		1978	1.43	1.30	1.81	1.94	1.04	0.13	0.91	0.13	3.63	0.	0.78	0.91	14.00
		1979	2.48	2.27	1.65	0.83	2.69	1.45	0.62	3.31	0.83	2.48	1.24	0.21	20.06
		1980	2.00	1.57	0.29	0.43	6.85	3.14	0.86	0.71	1.14	0.29	0.71	0.43	18.41
		MEAN	1.15	0.82	0.84	1.13	2.07	2.35	1.21	1.36	1.13	1.29	1.23	0.96	15.54

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
6	6600	1963	0.	0.	0.	0.	0.	0.	0.	0.37	1.40	1.03	1.50	0.75	5.05
		1964	1.06	0.47	0.59	0.94	2.01	4.37	0.24	0.35	0.	1.06	0.83	2.36	14.29
		1965	0.78	0.39	0.	2.15	1.96	1.17	0.78	2.54	1.17	0.20	1.76	0.98	13.89
		1966	0.29	0.48	0.29	0.	0.29	0.77	0.48	0.	0.29	0.19	0.39	0.48	3.97
		1967	0.49	0.	0.99	1.36	2.60	4.45	0.62	0.12	0.87	0.62	0.25	0.37	12.73
		1968	0.49	1.46	0.24	0.36	1.94	1.34	0.36	4.01	0.24	0.49	0.97	0.61	12.52
		1969	0.77	0.66	0.44	0.88	0.	5.73	0.44	0.22	0.99	1.10	0.77	1.10	13.12
		1970	2.20	0.52	0.39	0.65	1.17	2.59	1.04	1.55	0.65	1.17	2.07	0.91	14.90
		1971	0.76	0.51	1.27	1.91	4.83	2.04	0.13	1.02	0.76	0.64	1.15	0.64	15.65
		1972	1.47	0.49	0.24	0.86	0.37	1.59	0.	0.61	1.59	4.77	1.22	0.61	13.82
		1973	0.57	0.43	1.70	0.43	0.85	1.98	3.54	0.85	1.42	0.43	2.27	0.85	15.31
		1974	1.31	0.48	1.19	0.60	0.	0.36	0.60	0.36	0.	2.50	0.24	1.19	8.82
		1975	0.42	0.28	0.99	1.41	0.56	1.13	3.66	0.	0.	2.11	0.84	0.56	11.97
		1976	0.49	0.59	0.20	1.08	0.29	0.49	0.69	1.37	1.27	0.69	0.29	0.	7.44
		1977	0.22	0.33	0.44	0.22	3.20	0.55	2.32	1.22	0.99	0.	0.99	1.10	11.60
		1978	1.37	1.24	1.74	1.87	1.00	0.12	0.87	0.12	3.48	0.	0.75	0.87	13.44
		1979	2.21	2.03	1.48	0.74	2.40	1.29	0.55	2.95	0.74	2.21	1.11	0.18	17.89
		1980	1.77	1.39	0.25	0.38	6.05	2.77	0.76	0.63	1.01	0.25	0.63	0.38	16.27
		MEAN	0.99	0.70	0.74	0.94	1.76	1.95	1.02	1.09	0.95	1.09	1.01	0.78	13.02

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
7	5780														
		1963	0.	0.	0.	0.	0.	0.	0.	0.42	1.56	1.14	1.67	0.83	5.62
		1964	0.93	0.42	0.52	0.83	1.76	3.84	0.21	0.31	0.	0.93	0.73	2.08	12.56
		1965	0.75	0.38	0.	2.07	1.88	1.13	0.75	2.45	1.13	0.19	1.69	0.94	13.36
		1966	0.26	0.43	0.26	0.	0.26	0.68	0.43	0.	0.26	0.17	0.34	0.43	3.49
		1967	0.46	0.	0.93	1.28	2.44	4.18	0.58	0.12	0.81	0.58	0.23	0.35	11.95
		1968	0.47	1.41	0.23	0.35	1.88	1.29	0.35	3.87	0.23	0.47	0.94	0.59	12.09
		1969	0.63	0.54	0.36	0.72	0.	4.68	0.36	0.18	0.81	0.90	0.63	0.90	10.71
		1970	1.89	0.45	0.33	0.56	1.00	2.23	0.89	1.34	0.56	1.00	1.78	0.78	12.80
		1971	0.65	0.43	1.08	1.62	4.10	1.72	0.11	0.86	0.65	0.54	0.97	0.54	13.26
		1972	1.32	0.44	0.22	0.77	0.33	1.43	0.	0.55	1.43	4.28	1.10	0.55	12.41
		1973	0.47	0.35	1.40	0.35	0.70	1.63	2.91	0.70	1.16	0.35	1.86	0.70	12.58
		1974	1.08	0.39	0.99	0.49	0.	0.30	0.49	0.30	0.	2.07	0.20	0.99	7.29
		1975	0.41	0.27	0.95	1.36	0.54	1.09	3.54	0.	0.	2.04	0.82	0.54	11.58
		1976	0.46	0.55	0.18	1.01	0.27	0.46	0.64	1.28	1.19	0.64	0.27	0.	6.96
		1977	0.21	0.31	0.42	0.21	3.02	0.52	2.19	1.15	0.94	0.	0.94	1.04	10.93
		1978	1.14	1.03	1.45	1.55	0.83	0.10	0.72	0.10	2.90	0.	0.62	0.72	11.17
		1979	1.31	1.20	0.87	0.44	1.42	0.76	0.33	1.74	0.44	1.31	0.65	0.11	10.57
		1980	1.44	1.13	0.21	0.31	4.95	2.27	0.62	0.52	0.82	0.21	0.52	0.31	13.30
		MEAN	0.83	0.58	0.62	0.82	1.51	1.68	0.90	0.94	0.83	0.94	0.89	0.69	11.24

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
8	6240														
		1963	0.	0.	0.	0.	0.	0.	0.	0.22	0.81	0.60	0.87	0.43	2.93
		1964	0.48	0.22	0.27	0.43	0.92	1.99	0.11	0.16	0.	0.48	0.38	1.08	6.52
		1965	0.89	0.44	0.	2.44	2.22	1.33	0.89	2.89	1.33	0.22	2.00	1.11	15.77
		1966	0.35	0.58	0.35	0.	0.35	0.93	0.58	0.	0.35	0.23	0.47	0.58	4.79
		1967	0.55	0.	1.09	1.50	2.87	4.92	0.68	0.14	0.96	0.68	0.27	0.41	14.09
		1968	0.59	1.77	0.30	0.44	2.36	1.62	0.44	4.87	0.30	0.59	1.18	0.74	15.21
		1969	0.86	0.74	0.49	0.99	0.	6.42	0.49	0.25	1.11	1.23	0.86	1.23	14.69
		1970	2.46	0.58	0.43	0.72	1.30	2.89	1.16	1.74	0.72	1.30	2.32	1.01	16.64
		1971	0.81	0.54	1.34	2.01	5.10	2.15	0.13	1.07	0.81	0.67	1.21	0.67	16.51
		1972	1.66	0.55	0.28	0.97	0.41	1.80	0.	0.69	1.80	5.39	1.38	0.69	15.61
		1973	0.58	0.44	1.74	0.44	0.87	2.04	3.63	0.87	1.45	0.44	2.33	0.87	15.70
		1974	1.32	0.48	1.20	0.60	0.	0.36	0.60	0.36	0.	2.52	0.24	1.20	8.88
		1975	0.50	0.33	1.16	1.66	0.66	1.33	4.32	0.	0.	2.49	1.00	0.66	14.13
		1976	0.62	0.75	0.25	1.38	0.38	0.62	0.88	1.75	1.63	0.88	0.38	0.	9.50
		1977	0.27	0.40	0.53	0.27	3.87	0.67	2.80	1.47	1.20	0.	1.20	1.33	14.01
		MEAN	0.85	0.56	0.67	0.98	1.52	2.05	1.17	1.16	0.83	1.17	1.06	0.80	12.82

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
9	6520														
		1963	0.	0.	0.	0.	0.	0.	0.	0.46	1.73	1.27	1.85	0.92	6.23
		1964	1.28	0.57	0.71	1.14	2.41	5.25	0.28	0.43	0.	1.28	0.99	2.84	17.18
		1965	1.17	0.59	0.	3.23	2.94	1.76	1.17	3.82	1.76	0.29	2.64	1.47	20.84
		1966	0.40	0.66	0.40	0.	0.40	1.06	0.66	0.	0.40	0.26	0.53	0.66	5.43
		1967	0.65	0.	1.30	1.79	3.42	5.86	0.81	0.16	1.14	0.81	0.33	0.49	16.78
		1968	0.63	1.89	0.31	0.47	2.52	1.73	0.47	5.19	0.31	0.63	1.26	0.79	16.21
		1969	1.00	0.86	0.57	1.14	0.	7.43	0.57	0.29	1.29	1.43	1.00	1.43	17.01
		1970	2.82	0.66	0.50	0.83	1.49	3.32	1.33	1.99	0.83	1.49	2.65	1.16	19.08
		1971	0.87	0.58	1.45	2.17	5.49	2.31	0.14	1.16	0.87	0.72	1.30	0.72	17.78
		1972	1.81	0.60	0.30	1.06	0.45	1.96	0.	0.76	1.96	5.89	1.51	0.76	17.08
		1973	0.65	0.48	1.94	0.48	0.97	2.26	4.04	0.97	1.62	0.48	2.59	0.97	17.45
		1974	1.58	0.58	1.44	0.72	0.	0.43	0.72	0.43	0.	3.02	0.29	1.44	10.65
		1975	0.51	0.34	1.18	1.68	0.67	1.35	4.38	0.	0.	2.53	1.01	0.67	14.32
		1976	0.69	0.83	0.28	1.52	0.41	0.69	0.97	1.93	1.79	0.97	0.41	0.	10.48
		1977	0.34	0.51	0.68	0.34	4.94	0.85	3.58	1.88	1.53	0.	1.53	1.70	17.90
		MEAN	1.02	0.65	0.78	1.17	1.84	2.56	1.35	1.37	1.00	1.39	1.31	1.05	15.50

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
10	7380	1963	0.	0.	0.	0.	0.	0.	0.	0.40	1.51	1.11	1.61	0.81	5.44
		1964	1.20	0.53	0.67	1.07	2.27	4.95	0.27	0.40	0.	1.20	0.94	2.67	16.18
		1965	1.05	0.53	0.	2.89	2.63	1.58	1.05	3.41	1.58	0.26	2.36	1.31	18.64
		1966	0.50	0.83	0.50	0.	0.50	1.33	0.83	0.	0.50	0.33	0.66	0.83	6.81
		1967	0.74	0.	1.48	2.04	3.89	6.67	0.93	0.19	1.30	0.93	0.37	0.56	19.07
		1968	0.67	2.00	0.33	0.50	2.66	1.83	0.50	5.49	0.33	0.67	1.33	0.83	17.15
		1969	1.10	0.95	0.63	1.26	0.	8.21	0.63	0.32	1.42	1.58	1.10	1.58	18.78
		1970	2.99	0.70	0.53	0.88	1.59	3.52	1.41	2.11	0.88	1.59	2.82	1.23	20.26
		1971	0.96	0.64	1.60	2.40	6.07	2.56	0.16	1.28	0.96	0.80	1.44	0.80	19.65
		1972	2.00	0.67	0.33	1.17	0.50	2.17	0.	0.83	2.17	6.51	1.67	0.83	18.87
		1973	0.72	0.54	2.17	0.54	1.08	2.53	4.52	1.08	1.81	0.54	2.89	1.08	19.52
		1974	1.64	0.60	1.49	0.75	0.	0.45	0.75	0.45	0.	3.13	0.30	1.49	11.04
		1975	0.54	0.36	1.25	1.79	0.72	1.43	4.66	0.	0.	2.69	1.08	0.72	15.23
		1976	0.74	0.88	0.29	1.62	0.44	0.74	1.03	2.06	1.91	1.03	0.44	0.	11.18
		1977	0.32	0.48	0.64	0.32	4.62	0.80	3.35	1.75	1.43	0.	1.43	1.59	16.74
		MEAN	1.08	0.69	0.85	1.23	1.92	2.75	1.43	1.41	1.05	1.48	1.36	1.09	16.34

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
11	5700														
		1963	0.	0.	0.	0.	0.	0.	0.	0.16	0.59	0.44	0.63	0.32	2.14
		1964	0.57	0.26	0.32	0.51	1.08	2.36	0.13	0.19	0.	0.57	0.45	1.28	7.72
		1965	0.83	0.41	0.	2.28	2.07	1.24	0.83	2.69	1.24	0.21	1.86	1.04	14.71
		1966	0.20	0.34	0.20	0.	0.20	0.54	0.34	0.	0.20	0.14	0.27	0.34	2.77
		1967	0.27	0.	0.54	0.74	1.42	2.43	0.34	0.07	0.47	0.34	0.13	0.20	6.95
		1968	0.45	1.34	0.22	0.34	1.79	1.23	0.34	3.69	0.22	0.45	0.89	0.56	11.51
		1969	0.71	0.60	0.40	0.81	0.	5.24	0.40	0.20	0.91	1.01	0.71	1.01	11.99
		1970	1.97	0.46	0.35	0.58	1.04	2.32	0.93	1.39	0.58	1.04	1.86	0.81	13.34
		1971	0.74	0.50	1.24	1.86	4.71	1.99	0.12	0.99	0.74	0.62	1.12	0.62	15.26
		1972	1.49	0.50	0.25	0.87	0.37	1.62	0.	0.62	1.62	4.85	1.24	0.62	14.05
		1973	0.54	0.40	1.62	0.40	0.81	1.89	3.37	0.81	1.35	0.40	2.16	0.81	14.56
		1974	1.36	0.50	1.24	0.62	0.	0.37	0.62	0.37	0.	2.60	0.25	1.24	9.17
		1975	0.41	0.28	0.97	1.38	0.55	1.10	3.59	0.	0.	2.07	0.83	0.55	11.73
		1976	0.58	0.70	0.23	1.28	0.35	0.58	0.81	1.62	1.51	0.81	0.35	0.	8.82
		1977	0.24	0.36	0.48	0.24	3.47	0.60	2.51	1.32	1.08	0.	1.08	1.20	12.57
		MEAN	0.76	0.49	0.59	0.88	1.32	1.75	1.05	1.04	0.72	1.06	0.95	0.73	11.34

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
12	5900														
		1963	0.	0.	0.	0.	0.	0.	0.	0.31	1.16	0.85	1.23	0.62	4.16
		1964	1.02	0.45	0.57	0.91	1.93	4.20	0.23	0.34	0.	1.02	0.79	2.27	13.74
		1965	0.77	0.39	0.	2.13	1.93	1.16	0.77	2.51	1.16	0.19	1.74	0.97	13.72
		1966	0.32	0.53	0.32	0.	0.32	0.85	0.53	0.	0.32	0.21	0.42	0.53	4.35
		1967	0.53	0.	1.06	1.46	2.79	4.78	0.66	0.13	0.93	0.66	0.27	0.40	13.67
		1968	0.53	1.59	0.27	0.40	2.13	1.46	0.40	4.39	0.27	0.53	1.06	0.66	13.69
		1969	0.81	0.70	0.47	0.93	0.	6.05	0.47	0.23	1.05	1.16	0.81	1.16	13.84
		1970	1.93	0.45	0.34	0.57	1.02	2.27	0.91	1.36	0.57	1.02	1.82	0.80	13.08
		1971	0.81	0.54	1.34	2.02	5.11	2.15	0.13	1.08	0.81	0.67	1.21	0.67	16.53
		1972	1.44	0.48	0.24	0.84	0.36	1.56	0.	0.60	1.56	4.67	1.20	0.60	13.54
		1973	0.56	0.42	1.67	0.42	0.84	1.95	3.49	0.84	1.40	0.42	2.23	0.84	15.07
		1974	1.14	0.41	1.04	0.52	0.	0.31	0.52	0.31	0.	2.18	0.21	1.04	7.67
		1975	0.47	0.31	1.09	1.55	0.62	1.24	4.04	0.	0.	2.33	0.93	0.62	13.21
		1976	0.53	0.64	0.21	1.17	0.32	0.53	0.74	1.49	1.38	0.74	0.32	0.	8.07
		1977	0.24	0.36	0.49	0.24	3.52	0.61	2.55	1.33	1.09	0.	1.09	1.21	12.74
		1978	1.36	1.24	1.73	1.86	0.99	0.12	0.87	0.12	3.46	0.	0.74	0.87	13.36
		1979	1.74	1.60	1.16	0.58	1.89	1.02	0.44	2.33	0.58	1.74	0.87	0.15	14.10
		1980	1.85	1.46	0.26	0.40	6.36	2.91	0.79	0.66	1.06	0.26	0.66	0.40	17.09
		MEAN	0.93	0.67	0.71	0.94	1.75	1.94	1.03	1.06	0.92	1.04	0.98	0.76	12.74

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
13	6200														
		1963	0.	0.	0.	0.	0.	0.	0.	0.34	1.28	0.94	1.36	0.68	4.60
		1964	1.18	0.53	0.66	1.05	2.23	4.86	0.26	0.39	0.	1.18	0.92	2.63	15.90
		1965	0.91	0.46	0.	2.51	2.28	1.37	0.91	2.96	1.37	0.23	2.05	1.14	16.19
		1966	0.43	0.71	0.43	0.	0.43	1.14	0.71	0.	0.43	0.28	0.57	0.71	5.84
		1967	0.53	0.	1.07	1.47	2.81	4.81	0.67	0.13	0.94	0.67	0.27	0.40	13.77
		1968	0.59	1.77	0.30	0.44	2.37	1.63	0.44	4.88	0.30	0.59	1.18	0.74	15.23
		1969	0.90	0.77	0.51	1.03	0.	6.69	0.51	0.26	1.16	1.29	0.90	1.29	15.30
		1970	2.33	0.55	0.41	0.68	1.23	2.74	1.10	1.64	0.68	1.23	2.19	0.96	15.75
		1971	0.94	0.63	1.57	2.35	5.96	2.51	0.16	1.25	0.94	0.78	1.41	0.78	19.28
		1972	1.85	0.62	0.31	1.08	0.46	2.01	0.	0.77	2.01	6.03	1.55	0.77	17.46
		1973	0.69	0.52	2.07	0.52	1.03	2.41	4.31	1.03	1.72	0.52	2.76	1.03	18.62
		1974	1.54	0.56	1.40	0.70	0.	0.42	0.70	0.42	0.	2.94	0.28	1.40	10.35
		1975	0.50	0.33	1.17	1.67	0.67	1.34	4.35	0.	0.	2.51	1.00	0.67	14.22
		1976	0.59	0.71	0.24	1.30	0.35	0.59	0.83	1.65	1.53	0.83	0.35	0.	8.96
		1977	0.28	0.42	0.56	0.28	4.03	0.69	2.92	1.53	1.25	0.	1.25	1.39	14.58
		1978	1.48	1.34	1.88	2.02	1.07	0.13	0.94	0.13	3.76	0.	0.81	0.94	14.51
		1979	1.86	1.71	1.24	0.62	2.02	1.09	0.47	2.48	0.62	1.86	0.93	0.16	15.06
		1980	2.12	1.66	0.30	0.45	7.25	3.32	0.91	0.76	1.21	0.30	0.76	0.45	19.49
		MEAN	1.09	0.78	0.82	1.06	2.00	2.21	1.18	1.21	1.06	1.22	1.13	0.89	14.64

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
14	6500														
		1963	0.	0.	0.	0.	0.	0.	0.	0.37	1.37	1.00	1.46	0.73	4.93
		1964	1.44	0.64	0.80	1.28	2.71	5.90	0.32	0.48	0.	1.44	1.12	3.19	19.30
		1965	1.29	0.64	0.	3.53	3.21	1.93	1.29	4.18	1.93	0.32	2.89	1.61	22.81
		1966	0.44	0.73	0.44	0.	0.44	1.17	0.73	0.	0.44	0.29	0.59	0.73	6.02
		1967	0.51	0.	1.02	1.40	2.68	4.59	0.64	0.13	0.89	0.64	0.26	0.38	13.14
		1968	0.64	1.93	0.32	0.48	2.58	1.77	0.48	5.32	0.32	0.64	1.29	0.81	16.59
		1969	1.01	0.86	0.58	1.15	0.	7.48	0.58	0.29	1.29	1.44	1.01	1.44	17.12
		1970	2.81	0.66	0.50	0.83	1.49	3.31	1.32	1.98	0.83	1.49	2.65	1.16	19.02
		1971	1.04	0.69	1.73	2.59	6.56	2.76	0.17	1.38	1.04	0.86	1.55	0.86	21.23
		1972	2.04	0.68	0.34	1.19	0.51	2.21	0.	0.85	2.21	6.63	1.70	0.85	19.22
		1973	0.73	0.55	2.19	0.55	1.10	2.56	4.57	1.10	1.83	0.55	2.92	1.10	19.74
		1974	1.71	0.62	1.56	0.78	0.	0.47	0.78	0.47	0.	3.27	0.31	1.56	11.52
		1975	0.52	0.34	1.21	1.72	0.69	1.38	4.48	0.	0.	2.58	1.03	0.69	14.64
		1976	0.61	0.73	0.24	1.34	0.36	0.61	0.85	1.70	1.58	0.85	0.36	0.	9.24
		1977	0.23	0.35	0.47	0.23	3.40	0.59	2.46	1.29	1.05	0.	1.05	1.17	12.30
		MEAN	1.07	0.68	0.81	1.21	1.85	2.60	1.32	1.38	0.99	1.45	1.33	1.07	15.77

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
15	6320														
		1963	0.	0.	0.	0.	0.	0.	0.	0.29	1.08	0.79	1.16	0.58	3.90
		1964	1.14	0.51	0.63	1.01	2.16	4.69	0.25	0.38	0.	1.14	0.89	2.54	15.34
		1965	0.99	0.49	0.	2.72	2.47	1.48	0.99	3.22	1.48	0.25	2.23	1.24	17.56
		1966	0.43	0.71	0.43	0.	0.43	1.14	0.71	0.	0.43	0.28	0.57	0.71	5.83
		1967	0.55	0.	1.10	1.51	2.89	4.96	0.69	0.14	0.96	0.69	0.28	0.41	14.18
		1968	0.60	1.80	0.30	0.45	2.40	1.65	0.45	4.96	0.30	0.60	1.20	0.75	15.48
		1969	0.90	0.77	0.51	1.03	0.	6.67	0.51	0.26	1.15	1.28	0.90	1.28	15.27
		1970	2.41	0.57	0.43	0.71	1.28	2.84	1.14	1.70	0.71	1.28	2.27	0.99	16.33
		1971	0.94	0.63	1.57	2.36	5.98	2.52	0.16	1.26	0.94	0.79	1.42	0.79	19.36
		1972	1.79	0.60	0.30	1.04	0.45	1.94	0.	0.74	1.94	5.81	1.49	0.74	16.83
		1973	0.67	0.50	2.01	0.50	1.00	2.34	4.18	1.00	1.67	0.50	2.68	1.00	18.07
		1974	1.53	0.56	1.39	0.70	0.	0.42	0.70	0.42	0.	2.93	0.28	1.39	10.31
		1975	0.50	0.33	1.16	1.66	0.66	1.33	4.32	0.	0.	2.49	1.00	0.66	14.11
		1976	0.63	0.75	0.25	1.38	0.38	0.63	0.88	1.75	1.63	0.88	0.38	0.	9.51
		1977	0.28	0.42	0.56	0.28	4.08	0.70	2.95	1.55	1.27	0.	1.27	1.41	14.77
		1978	1.53	1.39	1.94	2.08	1.11	0.14	0.97	0.14	3.88	0.	0.83	0.97	14.98
		1979	2.20	2.01	1.46	0.73	2.38	1.28	0.55	2.93	0.73	2.20	1.10	0.18	17.75
		1980	2.13	1.67	0.30	0.46	7.30	3.35	0.91	0.76	1.22	0.30	0.76	0.46	19.63
		MEAN	1.13	0.80	0.84	1.10	2.05	2.26	1.20	1.27	1.07	1.25	1.16	0.90	15.03

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
16	5870	1963	0.	0.	0.	0.	0.	0.	0.	0.36	1.34	0.99	1.43	0.72	4.84
		1964	1.03	0.46	0.57	0.91	1.94	4.22	0.23	0.34	0.	1.03	0.80	2.28	13.80
		1965	0.78	0.39	0.	2.13	1.94	1.16	0.78	2.52	1.16	0.19	1.75	0.97	13.77
		1966	0.28	0.47	0.28	0.	0.28	0.76	0.47	0.	0.28	0.19	0.38	0.47	3.88
		1967	0.59	0.	1.18	1.63	3.11	5.32	0.74	0.15	1.04	0.74	0.30	0.44	15.23
		1968	0.50	1.49	0.25	0.37	1.99	1.37	0.37	4.10	0.25	0.50	0.99	0.62	12.80
		1969	0.75	0.64	0.43	0.86	0.	5.59	0.43	0.21	0.97	1.07	0.75	1.07	12.79
		1970	2.42	0.57	0.43	0.71	1.28	2.85	1.14	1.71	0.71	1.28	2.28	1.00	16.37
		1971	0.82	0.55	1.36	2.05	5.18	2.18	0.14	1.09	0.82	0.68	1.23	0.68	16.77
		1972	1.43	0.48	0.24	0.83	0.36	1.55	0.	0.60	1.55	4.65	1.19	0.60	13.46
		1973	0.55	0.41	1.65	0.41	0.82	1.92	3.43	0.82	1.37	0.41	2.19	0.82	14.81
		1974	1.27	0.46	1.15	0.58	0.	0.35	0.58	0.35	0.	2.42	0.23	1.15	8.54
		1975	0.42	0.28	0.97	1.38	0.55	1.11	3.60	0.	0.	2.08	0.83	0.55	11.77
		1976	0.51	0.61	0.20	1.12	0.31	0.51	0.71	1.43	1.32	0.71	0.31	0.	7.74
		1977	0.22	0.33	0.44	0.22	3.21	0.55	2.33	1.22	1.00	0.	1.00	1.11	11.64
		1978	1.20	1.09	1.53	1.64	0.88	0.11	0.77	0.11	3.06	0.	0.66	0.77	11.82
		1979	1.82	1.67	1.21	0.61	1.97	1.06	0.45	2.43	0.61	1.82	0.91	0.15	14.71
		1980	1.83	1.44	0.26	0.39	6.27	2.87	0.78	0.65	1.04	0.26	0.65	0.39	16.85
		MEAN	0.97	0.67	0.72	0.94	1.79	1.99	1.01	1.08	0.93	1.07	1.00	0.77	12.94

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
17	5880														
		1963	0.	0.	0.	0.	0.	0.	0.	0.34	1.27	0.93	1.35	0.68	4.56
		1964	0.84	0.37	0.47	0.75	1.59	3.46	0.19	0.28	0.	0.84	0.65	1.87	11.31
		1965	0.78	0.39	0.	2.14	1.95	1.17	0.78	2.53	1.17	0.19	1.75	0.97	13.83
		1966	0.24	0.40	0.24	0.	0.24	0.65	0.40	0.	0.24	0.16	0.32	0.40	3.32
		1967	0.43	0.	0.87	1.20	2.28	3.91	0.54	0.11	0.76	0.54	0.22	0.33	11.19
		1968	0.45	1.36	0.23	0.34	1.82	1.25	0.34	3.75	0.23	0.45	0.91	0.57	11.71
		1969	0.68	0.59	0.39	0.78	0.	5.07	0.39	0.20	0.88	0.98	0.68	0.98	11.61
		1970	1.79	0.42	0.32	0.53	0.95	2.10	0.84	1.26	0.53	0.95	1.68	0.74	12.08
		1971	0.71	0.47	1.18	1.77	4.48	1.89	0.12	0.94	0.71	0.59	1.06	0.59	14.51
		1972	1.34	0.45	0.22	0.78	0.34	1.45	0.	0.56	1.45	4.36	1.12	0.56	12.62
		1973	0.47	0.35	1.41	0.35	0.71	1.65	2.94	0.71	1.18	0.35	1.88	0.71	12.70
		1974	1.27	0.46	1.15	0.57	0.	0.34	0.57	0.34	0.	2.41	0.23	1.15	8.51
		1975	0.47	0.31	1.09	1.56	0.62	1.25	4.05	0.	0.	2.33	0.93	0.62	13.23
		1976	0.49	0.59	0.20	1.08	0.29	0.49	0.68	1.37	1.27	0.68	0.29	0.	7.43
		1977	0.25	0.37	0.50	0.25	3.60	0.62	2.60	1.36	1.12	0.	1.12	1.24	13.02
		1978	1.22	1.11	1.56	1.67	0.89	0.11	0.78	0.11	3.12	0.	0.67	0.78	12.02
		1979	1.64	1.51	1.10	0.55	1.78	0.96	0.41	2.19	0.55	1.64	0.82	0.14	13.28
		1980	1.91	1.50	0.27	0.41	6.55	3.00	0.82	0.68	1.09	0.27	0.68	0.41	17.60
		MEAN	0.89	0.63	0.66	0.87	1.66	1.74	0.97	0.99	0.87	0.99	0.91	0.71	11.89

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
18	5960	1963	0.	0.	0.	0.	0.	0.	0.	0.36	1.35	0.99	1.44	0.72	4.85
		1964	1.06	0.47	0.59	0.94	2.00	4.35	0.23	0.35	0.	1.06	0.82	2.35	14.21
		1965	0.93	0.47	0.	2.56	2.33	1.40	0.93	3.02	1.40	0.23	2.09	1.16	16.52
		1966	0.29	0.49	0.29	0.	0.29	0.78	0.49	0.	0.29	0.19	0.39	0.49	3.98
		1967	0.48	0.	0.96	1.32	2.52	4.32	0.60	0.12	0.84	0.60	0.24	0.36	12.37
		1968	0.48	1.44	0.24	0.36	1.92	1.32	0.36	3.96	0.24	0.48	0.96	0.60	12.37
		1969	0.79	0.68	0.45	0.91	0.	5.90	0.45	0.23	1.02	1.14	0.79	1.14	13.51
		1970	2.32	0.55	0.41	0.68	1.23	2.73	1.09	1.64	0.68	1.23	2.19	0.96	15.72
		1971	0.75	0.50	1.25	1.87	4.74	2.00	0.12	1.00	0.75	0.62	1.12	0.62	15.34
		1972	1.45	0.48	0.24	0.85	0.36	1.57	0.	0.60	1.57	4.72	1.21	0.60	13.67
		1973	0.55	0.41	1.64	0.41	0.82	1.91	3.42	0.82	1.37	0.41	2.19	0.82	14.76
		1974	1.38	0.50	1.26	0.63	0.	0.38	0.63	0.38	0.	2.64	0.25	1.26	9.31
		1975	0.46	0.30	1.07	1.52	0.61	1.22	3.96	0.	0.	2.28	0.91	0.61	12.94
		1976	0.51	0.62	0.21	1.13	0.31	0.51	0.72	1.44	1.33	0.72	0.31	0.	7.80
		1977	0.23	0.35	0.47	0.23	3.40	0.59	2.46	1.29	1.06	0.	1.06	1.17	12.32
		MEAN	0.84	0.53	0.65	0.95	1.48	2.05	1.10	1.08	0.80	1.14	1.06	0.85	12.51

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
19	5940														
		1963	0.	0.	0.	0.	0.	0.	0.	0.40	1.51	1.11	1.61	0.80	5.43
		1964	0.96	0.42	0.53	0.85	1.81	3.93	0.21	0.32	0.	0.96	0.74	2.12	12.85
		1965	0.76	0.38	0.	2.09	1.90	1.14	0.76	2.47	1.14	0.19	1.71	0.95	13.48
		1966	0.25	0.41	0.25	0.	0.25	0.66	0.41	0.	0.25	0.17	0.33	0.41	3.39
		1967	0.44	0.	0.88	1.21	2.31	3.96	0.55	0.11	0.77	0.55	0.22	0.33	11.32
		1968	0.52	1.55	0.26	0.39	2.07	1.42	0.39	4.27	0.26	0.52	1.04	0.65	13.33
		1969	0.66	0.57	0.38	0.76	0.	4.93	0.38	0.19	0.85	0.95	0.66	0.95	11.28
		1970	2.02	0.47	0.36	0.59	1.07	2.37	0.95	1.42	0.59	1.07	1.90	0.83	13.65
		1971	0.71	0.47	1.19	1.78	4.50	1.90	0.12	0.95	0.71	0.59	1.07	0.59	14.58
		1972	1.35	0.45	0.22	0.79	0.34	1.46	0.	0.56	1.46	4.38	1.12	0.56	12.70
		1973	0.53	0.40	1.60	0.40	0.80	1.86	3.33	0.80	1.33	0.40	2.13	0.80	14.37
		1974	1.36	0.50	1.24	0.62	0.	0.37	0.62	0.37	0.	2.60	0.25	1.24	9.17
		1975	0.41	0.28	0.97	1.38	0.55	1.10	3.59	0.	0.	2.07	0.83	0.55	11.74
		1976	0.49	0.59	0.20	1.09	0.30	0.49	0.69	1.38	1.28	0.69	0.30	0.	7.50
		1977	0.22	0.32	0.43	0.22	3.13	0.54	2.27	1.19	0.97	0.	0.97	1.08	11.35
		1978	1.18	1.07	1.50	1.60	0.86	0.11	0.75	0.11	2.99	0.	0.64	0.75	11.55
		1979	1.45	1.33	0.97	0.48	1.57	0.85	0.36	1.93	0.48	1.45	0.72	0.12	11.71
		1980	1.56	1.23	0.22	0.33	5.36	2.46	0.67	0.56	0.89	0.22	0.56	0.33	14.40
		MEAN	0.87	0.61	0.66	0.86	1.57	1.76	0.95	1.01	0.86	1.00	0.94	0.73	11.82

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
20	5590	1963	0.	0.	0.	0.	0.	0.	0.	0.39	1.45	1.06	1.54	0.77	5.21
		1964	0.81	0.36	0.45	0.72	1.54	3.35	0.18	0.27	0.	0.81	0.63	1.81	10.94
		1965	0.79	0.39	0.	2.17	1.97	1.18	0.79	2.56	1.18	0.20	1.77	0.99	13.99
		1966	0.26	0.43	0.26	0.	0.26	0.69	0.43	0.	0.26	0.17	0.35	0.43	3.56
		1967	0.48	0.	0.96	1.32	2.52	4.32	0.60	0.12	0.84	0.60	0.24	0.36	12.36
		1968	0.45	1.35	0.23	0.34	1.81	1.24	0.34	3.72	0.23	0.45	0.90	0.56	11.62
		1969	0.63	0.54	0.36	0.72	0.	4.71	0.36	0.18	0.81	0.91	0.63	0.91	10.77
		1970	1.87	0.44	0.33	0.55	0.99	2.21	0.88	1.32	0.55	0.99	1.76	0.77	12.68
		1971	0.77	0.51	1.28	1.92	4.87	2.05	0.13	1.02	0.77	0.64	1.15	0.64	15.75
		1972	1.34	0.45	0.22	0.78	0.34	1.45	0.	0.56	1.45	4.36	1.12	0.56	12.62
		1973	0.49	0.37	1.47	0.37	0.73	1.71	3.06	0.73	1.22	0.37	1.96	0.73	13.20
		1974	1.25	0.46	1.14	0.57	0.	0.34	0.57	0.34	0.	2.40	0.23	1.14	8.44
		1975	0.43	0.29	1.01	1.44	0.58	1.16	3.76	0.	0.	2.17	0.87	0.58	12.28
		1976	0.51	0.61	0.20	1.12	0.31	0.51	0.71	1.43	1.32	0.71	0.31	0.	7.74
		1977	0.22	0.33	0.44	0.22	3.21	0.55	2.32	1.22	1.00	0.	1.00	1.11	11.62
		1978	1.22	1.11	1.55	1.67	0.89	0.11	0.78	0.11	3.11	0.	0.67	0.78	11.99
		1979	1.44	1.32	0.96	0.48	1.56	0.84	0.36	1.92	0.48	1.44	0.72	0.12	11.66
		1980	1.52	1.20	0.22	0.33	5.22	2.39	0.65	0.54	0.87	0.22	0.54	0.33	14.04
		MEAN	0.85	0.60	0.65	0.87	1.58	1.70	0.94	0.97	0.86	0.97	0.91	0.70	11.60

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
21	5460														
		1968	0.41	1.23	0.41	0.27	3.15	1.09	0.55	2.87	0.27	0.68	0.82	0.27	12.04
		1969	0.80	0.70	0.30	1.00	0.	4.28	0.20	0.10	0.30	1.20	0.90	0.80	10.56
		1970	1.55	0.29	0.19	0.58	0.68	2.13	0.77	0.68	0.39	0.68	1.45	0.77	10.16
		1971	0.75	0.32	0.75	2.04	4.29	1.50	0.11	1.18	0.43	0.64	1.18	0.75	13.93
		1972	1.20	0.60	0.12	0.60	0.12	1.80	0.	0.72	1.32	4.92	1.08	0.72	13.19
		1973	0.88	0.63	2.02	0.63	0.38	1.51	1.89	0.63	0.88	0.50	1.89	0.63	12.49
		1974	1.57	0.94	0.63	0.47	0.16	0.31	0.16	0.31	0.	2.36	0.47	1.10	8.49
		1975	0.64	0.32	0.80	1.29	0.32	0.96	4.02	0.16	0.32	2.25	0.80	0.48	12.38
		1976	0.41	0.69	0.41	1.37	0.27	0.55	0.41	1.65	1.37	0.41	0.	0.	7.54
		1977	0.13	0.39	0.26	0.13	3.61	0.77	1.94	1.55	0.77	0.	1.03	1.16	11.74
		1978	1.14	0.91	1.37	2.06	0.80	0.23	0.57	0.23	3.09	0.	0.57	0.46	11.43
		1979	1.36	1.23	0.86	0.37	1.23	0.99	0.25	2.22	0.62	1.36	1.23	0.	11.71
		1980	2.02	1.19	0.36	0.47	5.93	2.37	0.47	0.36	0.71	0.12	0.36	0.12	14.48
		MEAN	0.99	0.73	0.65	0.87	1.61	1.42	0.87	0.97	0.81	1.16	0.91	0.56	11.55

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
22	6520														
		1968	0.63	1.90	0.32	0.47	2.53	1.74	0.47	5.21	0.32	0.63	1.26	0.79	16.27
		1969	0.85	0.73	0.49	0.97	0.	6.33	0.49	0.24	1.10	1.22	0.85	1.22	14.49
		1970	2.23	0.52	0.39	0.66	1.18	2.62	1.05	1.57	0.66	1.18	2.10	0.92	15.07
		1971	0.95	0.63	1.58	2.37	6.01	2.53	0.16	1.27	0.95	0.79	1.42	0.79	19.46
		1972	1.70	0.57	0.28	0.99	0.42	1.84	0.	0.71	1.84	5.52	1.42	0.71	16.00
		1973	0.65	0.49	1.96	0.49	0.98	2.29	4.09	0.98	1.63	0.49	2.61	0.98	17.65
		1974	1.72	0.63	1.56	0.78	0.	0.47	0.78	0.47	0.	3.28	0.31	1.56	11.57
		1975	0.53	0.35	1.23	1.76	0.70	1.41	4.58	0.	0.	2.64	1.06	0.70	14.97
		1976	0.60	0.72	0.24	1.33	0.36	0.60	0.84	1.69	1.57	0.84	0.36	0.	9.16
		1977	0.28	0.42	0.56	0.28	4.05	0.70	2.93	1.53	1.26	0.	1.26	1.40	14.65
		1978	1.51	1.37	1.92	2.06	1.10	0.14	0.96	0.14	3.84	0.	0.82	0.96	14.83
		1979	1.99	1.82	1.33	0.66	2.15	1.16	0.50	2.65	0.66	1.99	0.99	0.17	16.07
		1980	2.02	1.59	0.29	0.43	6.92	3.17	0.86	0.72	1.15	0.29	0.72	0.43	18.59
		MEAN	1.28	0.96	0.99	1.09	2.16	2.03	1.43	1.40	1.21	1.54	1.24	0.86	16.18

TABLE B-1-1; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; ROCK SPRINGS

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
23	6440														
		1968	0.55	1.65	0.27	0.41	2.20	1.51	0.41	4.54	0.27	0.55	1.10	0.69	14.16
		1969	0.81	0.69	0.46	0.93	0.	6.01	0.46	0.23	1.04	1.16	0.81	1.16	13.76
		1970	2.10	0.49	0.37	0.62	1.11	2.47	0.99	1.48	0.62	1.11	1.98	0.86	14.20
		1971	0.71	0.47	1.18	1.77	4.49	1.89	0.12	0.95	0.71	0.59	1.06	0.59	14.54
		1972	1.45	0.48	0.24	0.84	0.36	1.57	0.	0.60	1.57	4.70	1.21	0.60	13.63
		1973	0.55	0.41	1.65	0.41	0.82	1.92	3.43	0.82	1.37	0.41	2.19	0.82	14.81
		1974	1.37	0.50	1.25	0.62	0.	0.37	0.62	0.37	0.	2.62	0.25	1.25	9.22
		1975	0.48	0.32	1.13	1.62	0.65	1.29	4.20	0.	0.	2.42	0.97	0.65	13.74
		1976	0.63	0.76	0.25	1.40	0.38	0.63	0.89	1.78	1.65	0.89	0.38	0.	9.65
		1977	0.24	0.35	0.47	0.24	3.42	0.59	2.47	1.30	1.06	0.	1.06	1.18	12.37
		1978	1.25	1.14	1.60	1.71	0.91	0.11	0.80	0.11	3.19	0.	0.68	0.80	12.31
		1979	2.31	2.12	1.54	0.77	2.50	1.35	0.58	3.08	0.77	2.31	1.16	0.19	18.69
		1980	1.68	1.32	0.24	0.36	5.77	2.64	0.72	0.60	0.96	0.24	0.60	0.36	15.50
		MEAN	1.19	0.90	0.90	0.98	1.91	1.88	1.32	1.33	1.11	1.43	1.13	0.77	14.83

TABLE B-1-2; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CRANE SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
1	5320														
		1964	0.	0.	0.	0.	0.	0.	0.	0.12	0.23	0.35	1.29	3.63	5.62
		1965	0.89	0.45	0.30	2.08	1.63	1.48	0.74	1.48	0.15	0.30	1.93	1.19	12.61
		1966	0.21	0.32	0.21	0.75	0.96	0.21	0.64	0.32	0.11	0.11	0.85	1.81	6.51
		1967	0.68	0.41	1.77	1.22	0.95	2.72	0.54	0.14	0.14	0.41	0.27	0.54	9.78
		1968	0.72	1.31	1.08	0.48	1.79	2.63	0.12	2.51	0.24	1.08	1.31	0.48	13.74
		1969	1.29	1.29	0.20	0.50	0.40	2.08	0.10	0.20	0.20	0.99	0.59	1.58	9.41
		1970	1.59	0.24	0.61	0.61	0.37	1.71	0.49	1.10	0.85	0.73	1.10	0.98	10.38
		1971	0.26	1.05	0.66	1.18	3.28	1.71	0.39	0.26	0.39	0.39	1.44	1.18	12.20
		1972	0.34	0.46	0.23	0.46	0.34	1.14	0.11	0.68	1.60	1.37	0.91	0.91	8.55
		1973	1.05	1.95	0.75	1.35	1.05	1.05	0.45	0.45	0.30	1.05	1.65	1.20	12.28
		1974	1.31	1.17	1.02	0.88	0.29	0.	0.29	0.29	0.	1.90	0.58	1.46	9.19
		1975	0.77	0.61	1.54	1.84	2.00	1.08	0.77	0.31	0.31	2.46	1.08	0.46	13.21
		1976	1.14	0.63	0.25	0.63	1.01	0.76	0.63	1.01	2.79	0.76	0.25	0.89	10.78
		1977	0.70	0.28	0.42	0.28	1.95	1.39	0.28	0.56	0.56	0.	1.11	0.97	8.48
		1978	1.80	1.20	2.16	2.28	0.84	0.12	0.48	0.	4.08	0.36	0.84	0.72	14.89
		1979	1.61	1.01	0.91	0.71	1.51	0.60	1.11	1.01	0.50	0.91	0.60	0.60	11.09
		1980	2.20	1.68	0.91	0.65	3.36	1.29	0.52	0.13	0.91	0.78	1.04	1.16	14.62
		MEAN	1.03	0.88	0.81	0.99	1.36	1.25	0.48	0.66	0.79	0.82	0.99	1.16	11.22

TABLE B-1-2; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CRANE SPRINGS

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
2	5420														
		1964	0.	0.	0.	0.	0.	0.	0.	0.19	0.28	0.38	1.04	3.11	5.00
		1965	0.92	0.58	0.35	1.73	1.38	1.27	0.69	1.27	0.35	0.46	1.73	1.15	11.87
		1966	0.34	0.42	0.25	0.68	0.85	0.25	0.59	0.34	0.17	0.25	0.85	1.61	6.61
		1967	0.89	0.63	1.77	1.27	1.01	2.66	0.51	0.25	0.38	0.51	0.38	0.76	11.02
		1968	0.86	1.40	1.07	0.54	1.72	2.47	0.21	2.36	0.32	1.07	1.40	0.64	14.06
		1969	1.42	1.33	0.38	0.57	0.47	2.09	0.19	0.28	0.38	1.04	0.66	1.61	10.44
		1970	1.78	0.48	0.83	0.71	0.48	1.78	0.59	1.19	0.83	0.95	1.19	1.31	12.12
		1971	0.49	1.22	0.85	1.10	3.17	1.71	0.37	0.49	0.61	1.59	1.34	0.	12.93
		1972	0.55	0.66	0.33	0.55	0.44	1.10	0.22	0.77	1.77	1.54	1.10	1.21	10.26
		1973	1.26	2.10	0.84	1.26	1.12	0.98	0.56	0.42	0.28	1.26	1.82	1.40	13.27
		1974	1.54	1.12	0.98	0.84	0.42	0.	0.28	0.	1.96	0.70	1.68	0.	9.51
		1975	0.93	0.80	1.46	1.72	1.86	1.06	0.80	0.27	0.40	2.26	1.19	0.66	13.40
		1976	1.25	0.80	0.34	0.68	0.91	0.80	0.68	0.91	2.50	0.91	0.45	1.02	11.26
		1977	0.68	0.39	0.48	0.29	1.35	1.06	0.19	0.39	0.58	0.	0.97	0.87	7.25
		1978	1.90	1.34	2.01	2.12	0.89	0.11	0.45	0.	3.91	0.56	1.01	0.89	15.20
		1979	1.67	1.11	0.93	0.65	1.39	0.65	1.11	1.02	0.56	1.02	0.65	0.74	11.49
		1980	2.24	1.77	1.06	0.71	3.19	1.30	0.59	0.24	0.94	0.83	1.18	1.30	15.35
		MEAN	1.16	1.00	0.87	0.97	1.29	1.21	0.50	0.65	0.94	0.90	1.09	1.08	11.66

TABLE B-1-2; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CRANE SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
3	5560														
		1964	0.	0.	0.	0.	0.	0.	0.	0.17	0.26	0.35	0.95	2.86	4.59
		1965	0.90	0.56	0.34	1.68	1.35	1.24	0.67	1.24	0.34	0.45	1.68	1.12	11.57
		1966	0.36	0.44	0.27	0.71	0.89	0.27	0.62	0.36	0.18	0.27	0.89	1.69	6.94
		1967	0.89	0.64	1.78	1.27	1.02	2.67	0.51	0.25	0.38	0.51	0.38	0.76	11.08
		1968	0.85	1.38	1.06	0.53	1.70	2.44	0.21	2.33	0.32	1.06	1.38	0.64	13.90
		1969	1.29	1.20	0.34	0.51	0.43	1.89	0.17	0.26	0.34	0.94	0.60	1.46	9.44
		1970	1.66	0.44	0.77	0.66	0.44	1.66	0.55	1.11	0.77	0.89	1.11	1.22	11.29
		1971	0.53	1.31	0.92	1.18	3.42	1.84	0.39	0.53	0.66	1.71	1.45	0.	13.93
		1972	0.52	0.62	0.31	0.52	0.41	1.03	0.21	0.72	1.66	1.45	1.03	1.14	9.62
		1973	1.11	1.84	0.74	1.11	0.98	0.86	0.49	0.37	0.25	1.11	1.60	1.23	11.68
		1974	1.42	1.03	0.90	0.77	0.39	0.	0.26	0.	1.81	0.64	1.55	0.	8.77
		1975	0.81	0.69	1.27	1.50	1.62	0.93	0.69	0.23	0.35	1.97	1.04	0.58	11.69
		1976	1.12	0.71	0.30	0.61	0.81	0.71	0.61	0.81	2.23	0.81	0.41	0.91	10.05
		1977	0.72	0.41	0.51	0.31	1.43	1.13	0.20	0.41	0.61	0.	1.02	0.92	7.68
		MEAN	0.95	0.88	0.74	0.88	1.16	1.28	0.44	0.67	0.74	0.87	1.08	1.04	10.73

TABLE B-1-2; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CRANE SPRINGS

CAN	ELEVATION	YEAR					MONTH (INCHES)							TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
4	5770														
		1964	0.	0.	0.	0.	0.	0.	0.	0.22	0.32	0.43	1.18	3.55	5.70
		1965	1.04	0.65	0.39	1.95	1.56	1.43	0.78	1.43	0.39	0.52	1.95	1.30	13.36
		1966	0.35	0.43	0.26	0.70	0.87	0.26	0.61	0.35	0.17	0.26	0.87	1.65	6.78
		1967	0.85	0.61	1.70	1.21	0.97	2.54	0.48	0.24	0.36	0.48	0.36	0.73	10.54
		1968	0.88	1.42	1.10	0.55	1.75	2.52	0.22	2.41	0.33	1.10	1.42	0.66	14.35
		1969	1.57	1.47	0.42	0.63	0.52	2.30	0.21	0.31	0.42	1.15	0.73	1.78	11.52
		1970	1.94	0.52	0.91	0.78	0.52	1.94	0.65	1.29	0.91	1.03	1.29	1.42	13.19
		1971	0.60	1.51	1.06	1.36	3.93	2.12	0.45	0.60	0.76	1.97	1.66	0.	16.03
		1972	0.62	0.74	0.37	0.62	0.49	1.23	0.25	0.86	1.97	1.73	1.23	1.36	11.46
		1973	1.24	2.06	0.82	1.24	1.10	0.96	0.55	0.41	0.27	1.24	1.78	1.37	13.04
		1974	1.53	1.11	0.97	0.83	0.42	0.	0.28	0.	1.94	0.69	1.67	0.	9.44
		1975	1.00	0.86	1.57	1.86	2.00	1.14	0.86	0.29	0.43	2.43	1.29	0.71	14.44
		1976	1.26	0.80	0.34	0.68	0.91	0.80	0.68	0.91	2.51	0.91	0.46	1.03	11.30
		1977	0.79	0.45	0.57	0.34	1.59	1.25	0.23	0.45	0.68	0.	1.13	1.02	8.51
		MEAN	1.04	0.96	0.80	0.97	1.27	1.41	0.48	0.75	0.81	0.99	1.21	1.17	11.87

TABLE B-1-2; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CRANE SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
5	5600														
		1964	0.	0.	0.	0.	0.	0.	0.	0.25	0.37	0.50	1.37	4.10	6.59
		1965	1.00	0.63	0.38	1.88	1.51	1.38	0.75	1.38	0.38	0.50	1.88	1.26	12.93
		1966	0.35	0.44	0.26	0.70	0.88	0.26	0.61	0.35	0.18	0.26	0.88	1.67	6.84
		1967	0.78	0.56	1.57	1.12	0.90	2.35	0.45	0.22	0.34	0.45	0.34	0.67	9.74
		1968	0.93	1.52	1.17	0.58	1.87	2.69	0.23	2.57	0.35	1.17	1.52	0.70	15.30
		1969	1.58	1.47	0.42	0.63	0.53	2.31	0.21	0.32	0.42	1.16	0.74	1.79	11.56
		1970	1.97	0.53	0.92	0.79	0.53	1.97	0.66	1.31	0.92	1.05	1.31	1.44	13.39
		1971	0.63	1.58	1.11	1.43	4.12	2.22	0.48	0.63	0.79	2.06	1.74	0.	16.79
		1972	0.60	0.72	0.36	0.60	0.48	1.20	0.24	0.84	1.92	1.68	1.20	1.32	11.15
		1973	1.22	2.03	0.81	1.22	1.08	0.95	0.54	0.41	0.27	1.22	1.76	1.35	12.84
		1974	1.46	1.06	0.93	0.80	0.40	0.	0.27	0.	1.86	0.66	1.59	0.	9.01
		1975	1.00	0.86	1.57	1.86	2.00	1.14	0.86	0.29	0.43	2.43	1.29	0.72	14.45
		1976	1.23	0.78	0.34	0.67	0.89	0.78	0.67	0.89	2.46	0.89	0.45	1.01	11.06
		1977	0.67	0.38	0.48	0.29	1.34	1.06	0.19	0.38	0.58	0.	0.96	0.86	7.20
		1978	1.89	1.34	2.01	2.12	0.89	0.11	0.45	0.	3.90	0.56	1.00	0.89	15.15
		1979	1.85	1.23	1.03	0.72	1.54	0.72	1.23	1.13	0.62	1.13	0.72	0.82	12.76
		1980	2.16	1.71	1.02	0.68	3.07	1.25	0.57	0.23	0.91	0.80	1.14	1.25	14.78
		MEAN	1.20	1.05	0.89	1.00	1.37	1.28	0.52	0.70	0.97	0.97	1.17	1.17	12.30

TABLE B-1-2; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CRANE SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
6	5680														
		1964	0.	0.	0.	0.	0.	0.	0.	0.22	0.34	0.45	1.24	3.71	5.96
		1965	1.12	0.70	0.42	2.11	1.68	1.54	0.84	1.54	0.42	0.56	2.11	1.40	14.46
		1966	0.39	0.49	0.29	0.78	0.98	0.29	0.68	0.39	0.20	0.29	0.98	1.86	7.63
		1967	0.74	0.53	1.48	1.06	0.85	2.22	0.42	0.21	0.32	0.42	0.32	0.63	9.20
		1968	0.90	1.46	1.13	0.56	1.80	2.59	0.23	2.48	0.34	1.13	1.46	0.68	14.74
		1969	1.55	1.45	0.41	0.62	0.52	2.28	0.21	0.31	0.41	1.14	0.73	1.76	11.40
		1970	2.12	0.57	0.99	0.85	0.57	2.12	0.71	1.41	0.99	1.13	1.41	1.56	14.42
		1971	0.65	1.63	1.14	1.47	4.24	2.28	0.49	0.65	0.82	2.12	1.80	0.	17.30
		1972	0.58	0.69	0.35	0.58	0.46	1.15	0.23	0.81	1.84	1.61	1.15	1.27	10.70
		1973	1.16	1.94	0.77	1.16	1.03	0.90	0.52	0.39	0.26	1.16	1.68	1.29	12.26
		1974	1.53	1.11	0.97	0.84	0.42	0.	0.28	0.	1.95	0.70	1.67	0.	9.47
		1975	1.05	0.90	1.64	1.94	2.09	1.19	0.90	0.30	0.45	2.54	1.34	0.75	15.08
		1976	1.25	0.80	0.34	0.68	0.91	0.80	0.68	0.91	2.51	0.91	0.46	1.03	11.28
		1977	0.79	0.45	0.56	0.34	1.58	1.24	0.23	0.45	0.68	0.	1.13	1.01	8.44
		1978	1.92	1.36	2.03	2.15	0.90	0.11	0.45	0.	3.96	0.57	1.02	0.90	15.37
		1979	1.83	1.22	1.02	0.71	1.52	0.71	1.22	1.12	0.61	1.12	0.71	0.81	12.60
		1980	2.19	1.73	1.04	0.69	3.11	1.27	0.58	0.23	0.92	0.81	1.15	1.27	14.96
		MEAN	1.23	1.06	0.91	1.03	1.41	1.29	0.54	0.71	1.00	0.98	1.20	1.17	12.54

TABLE B-1-2; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CRANE SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
7	6080														
		1964	0.	0.	0.	0.	0.	0.	0.	0.24	0.36	0.48	1.31	3.92	6.30
		1965	1.09	0.68	0.41	2.03	1.63	1.49	0.81	1.49	0.41	0.54	2.03	1.36	13.97
		1966	0.39	0.49	0.30	0.79	0.98	0.30	0.69	0.39	0.20	0.30	0.98	1.87	7.68
		1967	1.04	0.74	2.08	1.48	1.19	3.12	0.59	0.30	0.45	0.59	0.45	0.89	12.91
		1968	0.93	1.50	1.16	0.58	1.85	2.66	0.23	2.54	0.35	1.16	1.50	0.69	15.15
		1969	1.70	1.58	0.45	0.68	0.57	2.49	0.23	0.34	0.45	1.25	0.79	1.92	12.45
		1970	2.04	0.54	0.95	0.81	0.54	2.04	0.68	1.36	0.95	1.09	1.36	1.49	13.85
		1971	0.72	1.80	1.26	1.62	4.69	2.52	0.54	0.72	0.90	2.34	1.98	0.	19.11
		1972	0.66	0.79	0.39	0.66	0.53	1.32	0.26	0.92	2.11	1.84	1.32	1.45	12.24
		1973	1.33	2.22	0.89	1.33	1.18	1.04	0.59	0.44	0.30	1.33	1.92	1.48	14.05
		1974	1.78	1.30	1.13	0.97	0.49	0.	0.32	0.	2.27	0.81	1.94	0.	11.01
		1975	1.17	1.00	1.84	2.18	2.34	1.34	1.00	0.33	0.50	2.85	1.51	0.84	16.91
		1976	1.37	0.87	0.37	0.75	0.99	0.87	0.75	0.99	2.74	0.99	0.50	1.12	12.31
		1977	0.81	0.46	0.58	0.35	1.62	1.27	0.23	0.46	0.69	0.	1.16	1.04	8.67
		1978	2.18	1.54	2.31	2.44	1.03	0.13	0.51	0.	4.49	0.64	1.15	1.03	17.44
		1979	2.02	1.35	1.12	0.78	1.68	0.78	1.35	1.23	0.67	1.23	0.78	0.90	13.90
		1980	2.46	1.94	1.17	0.78	3.50	1.42	0.65	0.26	1.04	0.91	1.30	1.42	16.84
		MEAN	1.35	1.17	1.02	1.13	1.54	1.42	0.59	0.75	1.10	1.07	1.29	1.26	13.68

TABLE B-1-2; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CRANE SPRINGS

CAN	ELEVATION	YEAR					MONTH (INCHES)							TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
8	5790														
		1964	0.	0.	0.	0.	0.	0.	0.	0.22	0.34	0.45	1.23	3.70	5.95
		1965	1.08	0.68	0.41	2.03	1.62	1.49	0.81	1.49	0.41	0.54	2.03	1.35	13.93
		1966	0.39	0.48	0.29	0.78	0.97	0.29	0.68	0.39	0.19	0.29	0.97	1.84	7.56
		1967	0.84	0.60	1.68	1.20	0.96	2.52	0.48	0.24	0.36	0.48	0.36	0.72	10.44
		1968	0.91	1.48	1.14	0.57	1.83	2.63	0.23	2.51	0.34	1.14	1.48	0.69	14.96
		1969	1.48	1.38	0.39	0.59	0.49	2.17	0.20	0.30	0.39	1.09	0.69	1.68	10.86
		1970	2.19	0.58	1.02	0.88	0.58	2.19	0.73	1.46	1.02	1.17	1.46	1.60	14.88
		1971	0.67	1.66	1.16	1.50	4.32	2.33	0.50	0.67	0.83	2.16	1.83	0.	17.63
		1972	0.66	0.79	0.39	0.66	0.52	1.31	0.26	0.92	2.10	1.84	1.31	1.44	12.20
		1973	1.20	1.99	0.80	1.20	1.06	0.93	0.53	0.40	0.27	1.20	1.73	1.33	12.62
		1974	1.57	1.14	1.00	0.86	0.43	0.	0.29	0.	2.00	0.71	1.72	0.	9.72
		1975	0.99	0.85	1.55	1.83	1.98	1.13	0.85	0.28	0.42	2.40	1.27	0.71	14.25
		1976	1.39	0.89	0.38	0.76	1.01	0.89	0.76	1.01	2.78	1.01	0.51	1.14	12.53
		1977	0.73	0.42	0.52	0.31	1.45	1.14	0.21	0.42	0.62	0.	1.04	0.93	7.79
		MEAN	1.10	1.01	0.84	1.02	1.34	1.46	0.51	0.79	0.88	1.04	1.26	1.23	12.47

TABLE B-1-2; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CRANE SPRINGS

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
9	5990	1964	0.	0.	0.	0.	0.	0.	0.	0.23	0.35	0.47	1.28	3.84	6.17
		1965	1.03	0.64	0.38	1.92	1.54	1.41	0.77	1.41	0.38	0.51	1.92	1.28	13.21
		1966	0.38	0.47	0.28	0.75	0.94	0.28	0.66	0.38	0.19	0.28	0.94	1.78	7.32
		1967	0.84	0.60	1.68	1.20	0.96	2.51	0.48	0.24	0.36	0.48	0.36	0.72	10.41
		1968	0.91	1.48	1.14	0.57	1.82	2.61	0.23	2.50	0.34	1.14	1.48	0.68	14.87
		1969	1.48	1.38	0.39	0.59	0.49	2.17	0.20	0.30	0.39	1.09	0.69	1.68	10.86
		1970	2.15	0.57	1.00	0.86	0.57	2.15	0.72	1.43	1.00	1.14	1.43	1.57	14.59
		1971	0.72	1.80	1.26	1.62	4.67	2.51	0.54	0.72	0.90	2.33	1.97	0.	19.03
		1972	0.68	0.81	0.41	0.68	0.54	1.35	0.27	0.95	2.17	1.90	1.35	1.49	12.59
		1973	1.28	2.13	0.85	1.28	1.13	0.99	0.57	0.43	0.28	1.28	1.84	1.42	13.46
		1974	1.56	1.14	1.00	0.85	0.43	0.	0.28	0.	1.99	0.71	1.71	0.	9.67
		1975	1.15	0.98	1.80	2.13	2.30	1.31	0.98	0.33	0.49	2.79	1.48	0.82	16.57
		1976	1.41	0.90	0.39	0.77	1.03	0.90	0.77	1.03	2.82	1.03	0.51	1.16	12.71
		1977	0.79	0.45	0.56	0.34	1.58	1.24	0.23	0.45	0.68	0.	1.13	1.02	8.46
		1978	1.97	1.39	2.09	2.21	0.93	0.12	0.46	0.	4.06	0.58	1.04	0.93	15.79
		1979	1.98	1.32	1.10	0.77	1.65	0.77	1.32	1.21	0.66	1.21	0.77	0.88	13.65
		1980	2.46	1.94	1.17	0.78	3.50	1.42	0.65	0.26	1.04	0.91	1.30	1.42	16.84
		MEAN	1.29	1.12	0.96	1.08	1.49	1.37	0.57	0.74	1.05	1.05	1.25	1.22	13.18

TABLE B-1-2; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CRANE SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
10	6180														
		1964	0.	0.	0.	0.	0.	0.	0.	0.23	0.35	0.47	1.28	3.84	6.17
		1965	1.10	0.69	0.41	2.06	1.65	1.51	0.83	1.51	0.41	0.55	2.06	1.38	14.17
		1966	0.40	0.49	0.30	0.79	0.99	0.30	0.69	0.40	0.20	0.30	0.99	1.88	7.72
		1967	0.92	0.66	1.84	1.32	1.05	2.77	0.53	0.26	0.40	0.53	0.40	0.79	11.46
		1968	0.90	1.47	1.13	0.57	1.81	2.60	0.23	2.49	0.34	1.13	1.47	0.68	14.81
		1969	1.42	1.32	0.38	0.57	0.47	2.08	0.19	0.28	0.38	1.04	0.66	1.60	10.38
		1970	2.06	0.55	0.96	0.83	0.55	2.06	0.69	1.38	0.96	1.10	1.38	1.51	14.03
		1971	0.71	1.77	1.24	1.59	4.60	2.48	0.53	0.71	0.88	2.30	1.94	0.	18.74
		1972	0.63	0.76	0.38	0.63	0.51	1.27	0.25	0.89	2.03	1.78	1.27	1.40	11.81
		1973	1.47	2.44	0.98	1.47	1.30	1.14	0.65	0.49	0.33	1.47	2.12	1.63	15.48
		1974	1.72	1.25	1.09	0.94	0.47	0.	0.31	0.	2.18	0.78	1.87	0.	10.61
		1975	1.00	0.86	1.57	1.86	2.00	1.14	0.86	0.29	0.43	2.43	1.29	0.71	14.44
		1976	1.40	0.89	0.38	0.76	1.02	0.89	0.76	1.02	2.80	1.02	0.51	1.14	12.58
		1977	0.82	0.47	0.59	0.35	1.64	1.29	0.23	0.47	0.70	0.	1.17	1.05	8.78
		MEAN	1.13	1.05	0.87	1.06	1.40	1.49	0.52	0.80	0.90	1.06	1.31	1.26	12.85

TABLE B-1-2; PRECIPITATION RECORD OF ELKO DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CRANE SPRINGS

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
11	6350														
		1964	0.	0.	0.	0.	0.	0.	0.	0.20	0.30	0.40	1.10	3.29	5.29
		1965	1.00	0.62	0.37	1.87	1.50	1.37	0.75	1.37	0.37	0.50	1.87	1.25	12.86
		1966	0.32	0.41	0.24	0.65	0.81	0.24	0.57	0.32	0.16	0.24	0.81	1.54	6.33
		1967	0.85	0.60	1.69	1.21	0.97	2.54	0.48	0.24	0.36	0.48	0.36	0.73	10.52
		1968	0.79	1.28	0.98	0.49	1.57	2.26	0.20	2.16	0.29	0.98	1.28	0.59	12.87
		1969	1.47	1.37	0.39	0.59	0.49	2.15	0.20	0.29	0.39	1.08	0.69	1.66	10.77
		1970	1.86	0.50	0.87	0.75	0.50	1.86	0.62	1.24	0.87	0.99	1.24	1.37	12.68
		1971	0.76	1.90	1.33	1.71	4.95	2.66	0.57	0.76	0.95	2.47	2.09	0.	20.17
		1972	0.66	0.79	0.40	0.66	0.53	1.32	0.26	0.92	2.11	1.84	1.32	1.45	12.25
		1973	1.34	2.24	0.89	1.34	1.19	1.04	0.60	0.45	0.30	1.34	1.94	1.49	14.16
		1974	1.65	1.20	1.05	0.90	0.45	0.	0.30	0.	2.10	0.75	1.80	0.	10.22
		1975	1.05	0.90	1.64	1.94	2.09	1.20	0.90	0.30	0.45	2.54	1.35	0.75	15.10
		1976	1.31	0.83	0.36	0.71	0.95	0.83	0.71	0.95	2.62	0.95	0.48	1.07	11.78
		1977	0.81	0.46	0.58	0.35	1.63	1.28	0.23	0.46	0.70	0.	1.16	1.05	8.71
		1978	1.95	1.38	2.06	2.18	0.92	0.11	0.46	0.	4.01	0.57	1.03	0.92	15.60
		1979	2.28	1.52	1.27	0.89	1.90	0.89	1.52	1.39	0.76	1.39	0.89	1.01	15.71
		1980	2.47	1.95	1.17	0.78	3.52	1.43	0.65	0.26	1.04	0.91	1.30	1.43	16.93
		MEAN	1.28	1.12	0.95	1.06	1.49	1.33	0.56	0.71	1.04	1.03	1.22	1.16	12.96

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
2	4840														
		1962	0.	0.	0.	0.	0.	0.	0.	0.17	0.09	1.08	0.60	0.65	2.59
		1963	1.13	0.56	0.85	1.69	1.13	2.11	0.	0.	0.70	0.85	1.83	0.42	11.27
		1964	0.56	0.	0.75	0.56	0.93	2.98	0.75	0.56	0.37	0.19	1.30	4.10	13.04
		1965	0.39	0.	0.39	0.26	0.13	1.83	0.39	2.09	0.65	0.26	1.57	0.52	8.50
		1966	0.58	0.47	0.35	0.47	0.23	0.	0.23	0.35	0.58	0.	1.87	1.17	6.31
		1967	2.38	0.	0.99	1.98	0.99	2.58	0.59	0.59	0.40	0.20	0.79	0.	11.49
		1968	0.21	1.44	0.31	0.82	0.93	0.72	0.21	1.23	0.21	0.31	1.23	0.51	8.13
		1969	2.37	0.69	0.38	0.61	0.	1.00	0.38	0.	0.31	0.61	0.31	0.92	7.58
		1970	2.27	0.31	0.62	0.52	1.55	2.79	0.21	0.10	0.21	0.52	2.07	1.03	12.20
		1971	1.06	0.45	2.42	0.76	2.72	2.42	0.30	0.15	1.97	0.61	1.51	1.66	16.04
		1972	1.47	0.73	0.61	0.12	0.24	2.32	0.	0.37	1.10	1.35	2.08	0.86	11.25
		1973	0.99	0.44	0.66	1.98	0.99	0.22	0.33	1.21	0.88	1.10	2.42	1.21	12.42
		1974	0.79	0.66	1.46	0.53	0.	0.	1.59	0.66	0.	1.46	0.66	1.19	9.00
		1975	1.15	0.82	0.49	0.33	0.	1.48	0.82	0.98	0.33	3.93	0.49	0.82	11.64
		1976	0.66	0.55	0.44	0.22	0.66	1.86	1.09	1.42	1.31	0.	0.55	0.	8.74
		1977	0.54	0.32	0.43	0.21	1.72	1.29	0.43	2.15	0.54	0.	1.40	1.50	10.53
		1978	1.28	1.06	0.96	0.85	0.32	0.21	0.53	0.11	1.81	0.	0.53	0.85	8.52
		1979	1.49	1.19	0.99	0.79	0.40	0.60	0.30	2.08	0.60	0.79	0.89	0.50	10.62
		1980	0.98	2.14	0.54	1.07	1.25	0.27	0.18	0.	0.80	0.36	0.71	0.63	8.93
		MEAN	1.12	0.65	0.75	0.77	0.79	1.37	0.46	0.79	0.67	0.72	1.20	0.97	10.27

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
3	5100	1962	0.	0.	0.	0.	0.	0.	0.	0.20	0.10	1.26	0.70	0.76	3.02
		1963	1.36	0.68	1.02	2.04	1.36	2.54	0.	0.	0.85	1.02	2.21	0.51	13.57
		1964	0.58	0.	0.77	0.58	0.97	3.09	0.77	0.58	0.39	0.19	1.35	4.25	13.51
		1965	0.41	0.	0.41	0.28	0.14	1.93	0.41	2.20	0.69	0.28	1.65	0.55	8.94
		1966	0.60	0.48	0.36	0.48	0.24	0.	0.24	0.36	0.60	0.	1.93	1.20	6.50
		1967	2.49	0.	1.04	2.07	1.04	2.69	0.62	0.62	0.41	0.21	0.83	0.	12.02
		1968	0.22	1.53	0.33	0.88	0.99	0.77	0.22	1.31	0.22	0.33	1.31	0.55	8.65
		1969	2.30	0.67	0.37	0.59	0.	0.97	0.37	0.	0.30	0.59	0.30	0.89	7.36
		1970	2.31	0.31	0.63	0.52	1.57	2.83	0.21	0.10	0.21	0.52	2.10	1.05	12.38
		1971	0.96	0.41	2.20	0.69	2.47	2.20	0.27	0.14	1.79	0.55	1.37	1.51	14.56
		1972	1.35	0.68	0.56	0.11	0.23	2.14	0.	0.34	1.02	1.24	1.92	0.79	10.38
		1973	0.98	0.44	0.66	1.97	0.98	0.22	0.33	1.20	0.87	1.09	2.40	1.20	12.35
		1974	0.75	0.62	1.37	0.50	0.	0.	1.49	0.62	0.	1.37	0.62	1.12	8.46
		1975	1.15	0.82	0.49	0.33	0.	1.47	0.82	0.98	0.33	3.93	0.49	0.82	11.63
		1976	0.61	0.51	0.41	0.20	0.61	1.73	1.02	1.32	1.22	0.	0.51	0.	8.14
		1977	0.58	0.35	0.46	0.23	1.86	1.39	0.46	2.32	0.58	0.	1.51	1.62	11.37
		MEAN	1.11	0.51	0.74	0.76	0.83	1.58	0.48	0.82	0.60	0.78	1.32	1.05	10.59

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
4	5160														
		1962	0.	0.	0.	0.	0.	0.	0.	0.19	0.09	1.18	0.66	0.71	2.83
		1963	1.46	0.73	1.10	2.19	1.46	2.74	0.	0.	0.91	1.10	2.38	0.55	14.62
		1964	0.61	0.	0.81	0.61	1.01	3.23	0.81	0.61	0.40	0.20	1.41	4.44	14.13
		1965	0.39	0.	0.39	0.26	0.13	1.84	0.39	2.10	0.66	0.26	1.58	0.53	8.54
		1966	0.60	0.48	0.36	0.48	0.24	0.	0.24	0.36	0.60	0.	1.93	1.21	6.51
		1967	2.20	0.	0.92	1.83	0.92	2.38	0.55	0.55	0.37	0.18	0.73	0.	10.64
		1968	0.21	1.49	0.32	0.85	0.96	0.75	0.21	1.28	0.21	0.32	1.28	0.53	8.42
		1969	2.30	0.67	0.37	0.59	0.	0.96	0.37	0.	0.30	0.59	0.30	0.89	7.33
		1970	2.43	0.33	0.66	0.55	1.66	2.98	0.22	0.11	0.22	0.55	2.21	1.11	13.04
		1971	0.99	0.43	2.27	0.71	2.56	2.27	0.28	0.14	1.85	0.57	1.42	1.56	15.05
		1972	1.49	0.74	0.62	0.12	0.25	2.36	0.	0.37	1.12	1.37	2.11	0.87	11.42
		1973	1.15	0.51	0.77	2.30	1.15	0.26	0.38	1.41	1.02	1.28	2.82	1.41	14.46
		1974	0.91	0.76	1.66	0.60	0.	0.	1.81	0.76	0.	1.66	0.76	1.36	10.27
		1975	1.24	0.89	0.53	0.35	0.	1.59	0.89	1.06	0.35	4.25	0.53	0.89	12.58
		1976	0.65	0.54	0.44	0.22	0.65	1.85	1.09	1.41	1.31	0.	0.54	0.	8.70
		1977	0.51	0.31	0.41	0.20	1.64	1.23	0.41	2.05	0.51	0.	1.33	1.43	10.04
		MEAN	1.14	0.52	0.77	0.79	0.84	1.63	0.51	0.83	0.62	0.84	1.37	1.09	10.95

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
5	5400														
		1962	0.	0.	0.	0.	0.	0.	0.	0.24	0.12	1.51	0.85	0.91	3.63
		1963	1.47	0.74	1.11	2.21	1.47	2.76	0.	0.	0.92	1.11	2.40	0.55	14.74
		1964	0.60	0.	0.80	0.60	1.00	3.20	0.80	0.60	0.40	0.20	1.40	4.40	14.00
		1965	0.41	0.	0.41	0.27	0.14	1.90	0.41	2.18	0.68	0.27	1.63	0.54	8.84
		1966	0.65	0.52	0.39	0.52	0.26	0.	0.26	0.39	0.65	0.	2.08	1.30	7.03
		1967	2.20	0.	0.91	1.83	0.91	2.38	0.55	0.55	0.37	0.18	0.73	0.	10.61
		1968	0.22	1.56	0.33	0.89	1.00	0.78	0.22	1.33	0.22	0.33	1.33	0.56	8.78
		1969	2.34	0.68	0.38	0.60	0.	0.98	0.38	0.	0.30	0.60	0.30	0.90	7.46
		1970	2.65	0.36	0.72	0.60	1.81	3.26	0.24	0.12	0.24	0.60	2.41	1.21	14.23
		1971	1.09	0.47	2.50	0.78	2.81	2.50	0.31	0.16	2.03	0.62	1.56	1.72	16.54
		1972	1.67	0.83	0.70	0.14	0.28	2.64	0.	0.42	1.25	1.53	2.36	0.97	12.79
		1973	1.18	0.52	0.79	2.36	1.18	0.26	0.39	1.44	1.05	1.31	2.88	1.44	14.79
		1974	0.92	0.76	1.68	0.61	0.	0.	1.83	0.76	0.	1.68	0.76	1.37	10.37
		1975	1.29	0.92	0.55	0.37	0.	1.66	0.92	1.11	0.37	4.42	0.55	0.92	13.08
		1976	0.56	0.47	0.38	0.19	0.56	1.60	0.94	1.22	1.13	0.	0.47	0.	7.51
		1977	0.60	0.36	0.48	0.24	1.92	1.44	0.48	2.40	0.60	0.	1.56	1.68	11.76
		MEAN	1.19	0.54	0.81	0.81	0.89	1.69	0.52	0.86	0.64	0.89	1.45	1.15	11.44

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
6	5520														
		1962	0.	0.	0.	0.	0.	0.	0.	0.29	0.14	1.81	1.02	1.09	4.35
		1963	1.72	0.86	1.29	2.58	1.72	3.22	0.	0.	1.07	1.29	2.79	0.64	17.17
		1964	0.55	0.	0.73	0.55	0.92	2.93	0.73	0.55	0.37	0.18	1.28	4.03	12.83
		1965	0.44	0.	0.44	0.29	0.15	2.04	0.44	2.34	0.73	0.29	1.75	0.58	9.49
		1966	0.72	0.57	0.43	0.57	0.29	0.	0.29	0.43	0.72	0.	2.29	1.43	7.74
		1967	2.67	0.	1.11	2.23	1.11	2.90	0.67	0.67	0.45	0.22	0.89	0.	12.92
		1968	0.25	1.75	0.37	1.00	1.12	0.87	0.25	1.50	0.25	0.37	1.50	0.62	9.86
		1969	2.40	0.70	0.39	0.62	0.	1.01	0.39	0.	0.31	0.62	0.31	0.93	7.67
		1970	2.51	0.34	0.68	0.57	1.71	3.08	0.23	0.11	0.23	0.57	2.28	1.14	13.44
		1971	1.04	0.45	2.39	0.75	2.69	2.39	0.30	0.15	1.94	0.60	1.49	1.64	15.82
		1972	1.71	0.86	0.71	0.14	0.29	2.71	0.	0.43	1.28	1.57	2.42	1.00	13.11
		1973	1.15	0.51	0.77	2.30	1.15	0.26	0.38	1.41	1.02	1.28	2.82	1.41	14.46
		1974	0.88	0.74	1.62	0.59	0.	0.	1.77	0.74	0.	1.62	0.74	1.33	10.02
		1975	1.31	0.94	0.56	0.37	0.	1.68	0.94	1.12	0.37	4.49	0.56	0.94	13.28
		1976	0.60	0.50	0.40	0.20	0.60	1.70	1.00	1.30	1.20	0.	0.50	0.	7.98
		1977	0.60	0.36	0.48	0.24	1.93	1.44	0.48	2.41	0.60	0.	1.57	1.69	11.80
		1978	1.33	1.11	1.00	0.88	0.33	0.22	0.55	0.11	1.88	0.	0.55	0.88	8.85
		1979	1.54	1.23	1.02	0.82	0.41	0.61	0.31	2.15	0.61	0.82	0.92	0.51	10.96
		1980	1.03	2.25	0.56	1.13	1.31	0.28	0.19	0.	0.84	0.38	0.75	0.66	9.38
		MEAN	1.24	0.72	0.83	0.88	0.87	1.53	0.50	0.87	0.73	0.85	1.39	1.08	11.50

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
7	6000														
		1962	0.	0.	0.	0.	0.	0.	0.	0.33	0.16	2.04	1.14	1.22	4.89
		1963	1.78	0.89	1.33	2.66	1.78	3.33	0.	0.	1.11	1.33	2.89	0.67	17.76
		1964	0.56	0.	0.75	0.56	0.94	2.99	0.75	0.56	0.37	0.19	1.31	4.11	13.09
		1965	0.46	0.	0.46	0.31	0.15	2.17	0.46	2.48	0.77	0.31	1.86	0.62	10.06
		1966	0.70	0.56	0.42	0.56	0.28	0.	0.28	0.42	0.70	0.	2.23	1.39	7.51
		1967	2.62	0.	1.09	2.19	1.09	2.84	0.66	0.66	0.44	0.22	0.87	0.	12.68
		1968	0.27	1.90	0.41	1.09	1.22	0.95	0.27	1.63	0.27	0.41	1.63	0.68	10.74
		1969	2.61	0.76	0.42	0.67	0.	1.09	0.42	0.	0.34	0.67	0.34	1.01	8.33
		1970	2.87	0.39	0.78	0.65	1.96	3.52	0.26	0.13	0.26	0.65	2.61	1.30	15.38
		1971	1.21	0.52	2.76	0.86	3.10	2.76	0.34	0.17	2.24	0.69	1.72	1.90	18.27
		1972	1.79	0.90	0.75	0.15	0.30	2.84	0.	0.45	1.34	1.64	2.54	1.05	13.74
		1973	1.25	0.56	0.83	2.50	1.25	0.28	0.42	1.53	1.11	1.39	3.06	1.53	15.71
		1974	0.97	0.81	1.78	0.65	0.	0.	1.94	0.81	0.	1.78	0.81	1.46	11.01
		1975	1.31	0.93	0.56	0.37	0.	1.68	0.93	1.12	0.37	4.48	0.56	0.93	13.24
		1976	0.62	0.51	0.41	0.21	0.62	1.74	1.03	1.33	1.23	0.	0.51	0.	8.21
		1977	0.58	0.35	0.46	0.23	1.85	1.39	0.46	2.31	0.58	0.	1.50	1.62	11.34
		1978	1.52	1.27	1.14	1.02	0.38	0.25	0.63	0.13	2.16	0.	0.63	1.02	10.16
		1979	1.43	1.14	0.95	0.76	0.38	0.57	0.29	2.00	0.57	0.76	0.86	0.48	10.18
		1980	1.02	2.22	0.56	1.11	1.30	0.28	0.19	0.	0.83	0.37	0.74	0.65	9.27
		MEAN	1.31	0.76	0.88	0.92	0.92	1.59	0.52	0.89	0.78	0.89	1.46	1.14	12.04

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
8	6440														
		1962	0.	0.	0.	0.	0.	0.	0.	0.36	0.18	2.22	1.24	1.33	5.33
		1963	1.64	0.82	1.23	2.46	1.64	3.08	0.	0.	1.03	1.23	2.67	0.62	16.43
		1964	0.66	0.	0.88	0.66	1.10	3.52	0.88	0.66	0.44	0.22	1.54	4.83	15.38
		1965	0.51	0.	0.51	0.34	0.17	2.38	0.51	2.72	0.85	0.34	2.04	0.68	11.03
		1966	0.74	0.60	0.45	0.60	0.30	0.	0.30	0.45	0.74	0.	2.38	1.49	8.04
		1967	2.55	0.	1.06	2.12	1.06	2.76	0.64	0.64	0.42	0.21	0.85	0.	12.32
		1968	0.28	1.95	0.42	1.11	1.25	0.97	0.28	1.67	0.28	0.42	1.67	0.70	10.99
		1969	2.81	0.82	0.45	0.72	0.	1.18	0.45	0.	0.36	0.72	0.36	1.09	8.97
		1970	2.85	0.39	0.78	0.65	1.94	3.50	0.26	0.13	0.26	0.65	2.59	1.30	15.30
		1971	1.24	0.53	2.83	0.89	3.19	2.83	0.35	0.18	2.30	0.71	1.77	1.95	18.77
		1972	1.70	0.85	0.71	0.14	0.28	2.69	0.	0.42	1.27	1.56	2.41	0.99	13.03
		1973	1.26	0.56	0.84	2.53	1.26	0.28	0.42	1.55	1.12	1.41	3.09	1.55	15.88
		1974	1.01	0.85	1.86	0.68	0.	0.	2.03	0.85	0.	1.86	0.85	1.52	11.50
		1975	1.33	0.95	0.57	0.38	0.	1.70	0.95	1.14	0.38	4.55	0.57	0.95	13.45
		1976	0.65	0.54	0.43	0.22	0.65	1.83	1.08	1.40	1.29	0.	0.54	0.	8.61
		1977	0.61	0.36	0.49	0.24	1.95	1.46	0.49	2.43	0.61	0.	1.58	1.70	11.92
		1978	1.58	1.32	1.18	1.05	0.39	0.26	0.66	0.13	2.24	0.	0.66	1.05	10.53
		1979	1.54	1.23	1.03	0.82	0.41	0.62	0.31	2.16	0.62	0.82	0.93	0.51	11.00
		1980	1.10	2.39	0.60	1.20	1.40	0.30	0.20	0.	0.90	0.40	0.80	0.70	9.97
		MEAN	1.34	0.78	0.91	0.93	0.94	1.63	0.54	0.93	0.80	0.91	1.50	1.20	12.42

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
9	6840														
		1962	0.	0.	0.	0.	0.	0.	0.	0.42	0.21	2.63	1.47	1.58	6.32
		1963	1.88	0.94	1.41	2.82	1.88	3.52	0.	0.	1.17	1.41	3.05	0.70	18.79
		1964	0.89	0.	1.19	0.89	1.48	4.75	1.19	0.89	0.59	0.30	2.08	6.53	20.79
		1965	0.60	0.	0.60	0.40	0.20	2.81	0.60	3.21	1.00	0.40	2.41	0.80	13.06
		1966	0.89	0.71	0.53	0.71	0.36	0.	0.36	0.53	0.89	0.	2.84	1.78	9.60
		1967	3.11	0.	1.30	2.59	1.30	3.37	0.78	0.78	0.52	0.26	1.04	0.	15.04
		1968	0.33	2.29	0.49	1.31	1.47	1.15	0.33	1.96	0.33	0.49	1.96	0.82	12.93
		1969	2.59	0.75	0.42	0.67	0.	1.09	0.42	0.	0.33	0.67	0.33	1.00	8.28
		1970	3.30	0.45	0.90	0.75	2.25	4.05	0.30	0.15	0.30	0.75	3.00	1.50	17.72
		1971	1.35	0.58	3.09	0.97	3.48	3.09	0.39	0.19	2.51	0.77	1.93	2.12	20.47
		1972	1.98	0.99	0.82	0.16	0.33	3.13	0.	0.49	1.48	1.81	2.80	1.15	15.17
		1973	1.43	0.64	0.96	2.87	1.43	0.32	0.48	1.75	1.27	1.59	3.50	1.75	18.00
		1974	1.11	0.93	2.04	0.74	0.	0.	2.22	0.93	0.	2.04	0.93	1.67	12.59
		1975	1.53	1.09	0.66	0.44	0.	1.97	1.09	1.31	0.44	5.24	0.66	1.09	15.51
		1976	0.70	0.58	0.47	0.23	0.70	1.98	1.17	1.52	1.40	0.	0.58	0.	9.34
		1977	0.71	0.42	0.57	0.28	2.27	1.70	0.57	2.83	0.71	0.	1.84	1.98	13.88
		1978	1.64	1.37	1.23	1.10	0.41	0.27	0.69	0.14	2.33	0.	0.69	1.10	10.96
		1979	1.68	1.35	1.12	0.90	0.45	0.67	0.34	2.36	0.67	0.90	1.01	0.56	12.00
		1980	1.15	2.52	0.63	1.26	1.47	0.31	0.21	0.	0.94	0.42	0.84	0.73	10.49
		MEAN	1.49	0.86	1.02	1.05	1.07	1.89	0.61	1.07	0.90	1.03	1.72	1.40	14.12

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
10	6900														
		1962	0.	0.	0.	0.	0.	0.	0.	0.45	0.23	2.83	1.59	1.70	6.80
		1963	1.88	0.94	1.41	2.81	1.88	3.52	0.	0.	1.17	1.41	3.05	0.70	18.76
		1964	0.94	0.	1.25	0.94	1.57	5.01	1.25	0.94	0.63	0.31	2.19	6.89	21.92
		1965	0.62	0.	0.62	0.41	0.21	2.89	0.62	3.31	1.03	0.41	2.48	0.83	13.43
		1966	0.88	0.70	0.53	0.70	0.35	0.	0.35	0.53	0.88	0.	2.81	1.75	9.47
		1967	3.16	0.	1.31	2.63	1.31	3.42	0.79	0.79	0.53	0.26	1.05	0.	15.25
		1968	0.34	2.36	0.51	1.35	1.52	1.18	0.34	2.03	0.34	0.51	2.03	0.84	13.34
		1969	2.69	0.78	0.43	0.69	0.	1.13	0.43	0.	0.35	0.69	0.35	1.04	8.59
		1970	3.41	0.46	0.93	0.77	2.32	4.18	0.31	0.15	0.31	0.77	3.10	1.55	18.28
		1971	1.39	0.60	3.18	0.99	3.58	3.18	0.40	0.20	2.59	0.80	1.99	2.19	21.08
		1972	2.21	1.10	0.92	0.18	0.37	3.49	0.	0.55	1.65	2.02	3.12	1.29	16.91
		1973	1.49	0.66	1.00	2.99	1.49	0.33	0.50	1.83	1.33	1.66	3.65	1.83	18.75
		1974	1.18	0.98	2.17	0.79	0.	0.	2.36	0.98	0.	2.17	0.98	1.77	13.39
		1975	1.50	1.07	0.64	0.43	0.	1.93	1.07	1.28	0.43	5.13	0.64	1.07	15.19
		1976	0.65	0.54	0.43	0.22	0.65	1.84	1.08	1.41	1.30	0.	0.54	0.	8.66
		1977	0.67	0.40	0.53	0.27	2.13	1.60	0.53	2.66	0.67	0.	1.73	1.86	13.04
		1978	1.72	1.43	1.29	1.15	0.43	0.29	0.72	0.14	2.44	0.	0.72	1.15	11.46
		1979	1.62	1.30	1.08	0.86	0.43	0.65	0.32	2.27	0.65	0.86	0.97	0.54	11.55
		1980	1.18	2.58	0.64	1.29	1.50	0.32	0.21	0.	0.97	0.43	0.86	0.75	10.74
		MEAN	1.53	0.88	1.05	1.08	1.10	1.94	0.63	1.08	0.92	1.07	1.78	1.46	14.50

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
11	6740														
		1962	0.	0.	0.	0.	0.	0.	0.	0.46	0.23	2.87	1.61	1.72	6.89
		1963	1.80	0.90	1.35	2.70	1.80	3.37	0.	0.	1.12	1.35	2.92	0.67	17.97
		1964	0.91	0.	1.21	0.91	1.52	4.85	1.21	0.91	0.61	0.30	2.12	6.67	21.23
		1965	0.59	0.	0.59	0.39	0.20	2.74	0.59	3.13	0.98	0.39	2.35	0.78	12.73
		1966	0.84	0.67	0.51	0.67	0.34	0.	0.34	0.51	0.84	0.	2.70	1.69	9.11
		1967	2.88	0.	1.20	2.40	1.20	3.12	0.72	0.72	0.48	0.24	0.96	0.	13.92
		1968	0.33	2.30	0.49	1.32	1.48	1.15	0.33	1.97	0.33	0.49	1.97	0.82	13.00
		1969	2.46	0.72	0.40	0.64	0.	1.03	0.40	0.	0.32	0.64	0.32	0.95	7.87
		1970	3.37	0.46	0.92	0.77	2.30	4.13	0.31	0.15	0.31	0.77	3.06	1.53	18.07
		1971	1.36	0.58	3.11	0.97	3.50	3.11	0.39	0.19	2.53	0.78	1.94	2.14	20.59
		1972	2.04	1.02	0.85	0.17	0.34	3.23	0.	0.51	1.53	1.87	2.89	1.19	15.65
		1973	1.44	0.64	0.96	2.88	1.44	0.32	0.48	1.76	1.28	1.60	3.51	1.76	18.05
		1974	1.13	0.94	2.06	0.75	0.	0.	2.25	0.94	0.	2.06	0.94	1.69	12.76
		1975	1.48	1.06	0.64	0.42	0.	1.91	1.06	1.27	0.42	5.08	0.64	1.06	15.03
		1976	0.69	0.57	0.46	0.23	0.69	1.95	1.15	1.49	1.38	0.	0.57	0.	9.18
		1977	0.66	0.40	0.53	0.27	2.13	1.60	0.53	2.66	0.66	0.	1.73	1.86	13.03
		1978	1.65	1.37	1.24	1.10	0.41	0.27	0.69	0.14	2.34	0.	0.69	1.10	10.99
		1979	1.78	1.43	1.19	0.95	0.48	0.71	0.36	2.49	0.71	0.95	1.07	0.59	12.71
		1980	1.19	2.60	0.65	1.30	1.52	0.33	0.22	0.	0.98	0.43	0.87	0.76	10.85
		MEAN	1.48	0.87	1.02	1.05	1.07	1.88	0.61	1.07	0.90	1.04	1.73	1.42	14.16

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
12	6990														
		1962	0.	0.	0.	0.	0.	0.	0.	0.33	0.16	2.06	1.15	1.23	4.94
		1963	1.71	0.85	1.28	2.56	1.71	3.20	0.	0.	1.07	1.28	2.78	0.64	17.08
		1964	0.84	0.	1.13	0.84	1.41	4.50	1.13	0.84	0.56	0.28	1.97	6.19	19.70
		1965	0.57	0.	0.57	0.38	0.19	2.65	0.57	3.03	0.95	0.38	2.27	0.76	12.29
		1966	0.92	0.74	0.55	0.74	0.37	0.	0.37	0.55	0.92	0.	2.95	1.84	9.96
		1967	3.00	0.	1.25	2.50	1.25	3.25	0.75	0.75	0.50	0.25	1.00	0.	14.52
		1968	0.30	2.08	0.45	1.19	1.34	1.04	0.30	1.78	0.30	0.45	1.78	0.74	11.75
		1969	2.48	0.72	0.40	0.64	0.	1.04	0.40	0.	0.32	0.64	0.32	0.96	7.91
		1970	3.32	0.45	0.91	0.76	2.27	4.08	0.30	0.15	0.30	0.76	3.02	1.51	17.83
		1971	1.36	0.58	3.10	0.97	3.49	3.10	0.39	0.19	2.52	0.77	1.94	2.13	20.53
		1972	1.96	0.98	0.81	0.16	0.33	3.10	0.	0.49	1.47	1.79	2.77	1.14	14.99
		1973	1.45	0.65	0.97	2.91	1.45	0.32	0.48	1.78	1.29	1.61	3.55	1.78	18.24
		1974	1.25	1.04	2.28	0.83	0.	0.	2.49	1.04	0.	2.28	1.04	1.87	14.12
		1975	1.52	1.08	0.65	0.43	0.	1.95	1.08	1.30	0.43	5.21	0.65	1.08	15.40
		1976	0.68	0.57	0.45	0.23	0.68	1.92	1.13	1.47	1.36	0.	0.57	0.	9.05
		1977	0.67	0.40	0.53	0.27	2.14	1.60	0.53	2.67	0.67	0.	1.74	1.87	13.10
		MEAN	1.47	0.69	1.02	1.03	1.11	2.10	0.66	1.09	0.81	1.11	1.84	1.48	14.40

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
13	4960	1962	0.	0.	0.	0.	0.	0.	0.	0.22	0.11	1.37	0.77	0.82	3.28
		1963	1.50	0.75	1.12	2.25	1.50	2.81	0.	0.	0.94	1.12	2.43	0.56	14.98
		1964	0.55	0.	0.74	0.55	0.92	2.94	0.74	0.55	0.37	0.18	1.29	4.05	12.88
		1965	0.42	0.	0.42	0.28	0.14	1.97	0.42	2.25	0.70	0.28	1.69	0.56	9.13
		1966	0.70	0.56	0.42	0.56	0.28	0.	0.28	0.42	0.70	0.	2.23	1.39	7.53
		1967	3.04	0.	1.26	2.53	1.26	3.29	0.76	0.76	0.51	0.25	1.01	0.	14.67
		1968	0.23	1.58	0.34	0.90	1.02	0.79	0.23	1.36	0.23	0.34	1.36	0.57	8.93
		1969	2.51	0.73	0.41	0.65	0.	1.05	0.41	0.	0.32	0.65	0.32	0.97	8.03
		1970	2.77	0.38	0.75	0.63	1.89	3.40	0.25	0.13	0.25	0.63	2.52	1.26	14.84
		1971	1.00	0.43	2.28	0.71	2.56	2.28	0.28	0.14	1.85	0.57	1.42	1.57	15.10
		1972	1.68	0.84	0.70	0.14	0.28	2.67	0.	0.42	1.26	1.54	2.39	0.98	12.91
		1973	1.06	0.47	0.71	2.12	1.06	0.24	0.35	1.30	0.94	1.18	2.60	1.30	13.33
		1974	1.02	0.85	1.88	0.68	0.	0.	2.05	0.85	0.	1.88	0.85	1.54	11.60
		1975	1.37	0.98	0.59	0.39	0.	1.76	0.98	1.17	0.39	4.69	0.59	0.98	13.87
		1976	0.61	0.51	0.41	0.20	0.61	1.73	1.02	1.32	1.22	0.	0.51	0.	8.13
		1977	0.59	0.35	0.47	0.24	1.89	1.42	0.47	2.36	0.59	0.	1.53	1.65	11.57
		1978	1.27	1.06	0.95	0.84	0.32	0.21	0.53	0.11	1.79	0.	0.53	0.84	8.44
		1979	1.50	1.20	1.00	0.80	0.40	0.60	0.30	2.11	0.60	0.80	0.90	0.50	10.73
		1980	0.98	2.14	0.53	1.07	1.25	0.27	0.18	0.	0.80	0.36	0.71	0.62	8.90
		MEAN	1.28	0.71	0.84	0.87	0.87	1.55	0.52	0.87	0.72	0.85	1.37	1.08	11.54

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
14	5490														
		1962	0.	0.	0.	0.	0.	0.	0.	0.27	0.13	1.66	0.93	0.99	3.98
		1963	1.57	0.78	1.18	2.35	1.57	2.94	0.	0.	0.98	1.18	2.55	0.59	15.68
		1964	0.64	0.	0.86	0.64	1.07	3.44	0.86	0.64	0.43	0.21	1.50	4.72	15.03
		1965	0.47	0.	0.47	0.31	0.16	2.17	0.47	2.48	0.78	0.31	1.86	0.62	10.09
		1966	0.73	0.59	0.44	0.59	0.29	0.	0.29	0.44	0.73	0.	2.35	1.47	7.93
		1967	2.94	0.	1.22	2.45	1.22	3.19	0.73	0.73	0.49	0.24	0.98	0.	14.21
		1968	0.23	1.59	0.34	0.91	1.02	0.80	0.23	1.37	0.23	0.34	1.37	0.57	8.99
		1969	2.48	0.72	0.40	0.64	0.	1.04	0.40	0.	0.32	0.64	0.32	0.96	7.93
		1970	2.61	0.36	0.71	0.59	1.78	3.21	0.24	0.12	0.24	0.59	2.38	1.19	14.02
		1971	1.09	0.47	2.48	0.78	2.79	2.48	0.31	0.16	2.02	0.62	1.55	1.71	16.44
		1972	1.78	0.89	0.74	0.15	0.30	2.83	0.	0.45	1.34	1.64	2.53	1.04	13.68
		1973	1.13	0.50	0.75	2.26	1.13	0.25	0.38	1.38	1.00	1.25	2.76	1.38	14.16
		1974	1.01	0.84	1.86	0.67	0.	0.	2.02	0.84	0.	1.86	0.84	1.52	11.47
		1975	1.38	0.99	0.59	0.40	0.	1.78	0.99	1.19	0.40	4.75	0.59	0.99	14.04
		1976	0.54	0.45	0.36	0.18	0.54	1.54	0.91	1.18	1.09	0.	0.45	0.	7.25
		1977	0.55	0.33	0.44	0.22	1.76	1.32	0.44	2.21	0.55	0.	1.43	1.54	10.81
		MEAN	1.28	0.58	0.86	0.88	0.91	1.78	0.55	0.89	0.67	0.95	1.52	1.20	12.06

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
15	4760														
		1962	0.	0.	0.	0.	0.	0.	0.	0.19	0.10	1.20	0.67	0.72	2.88
		1963	1.15	0.58	0.86	1.73	1.15	2.16	0.	0.	0.72	0.86	1.87	0.43	11.53
		1964	0.59	0.	0.78	0.59	0.98	3.12	0.78	0.59	0.39	0.20	1.37	4.30	13.67
		1965	0.41	0.	0.41	0.27	0.14	1.92	0.41	2.20	0.69	0.27	1.65	0.55	8.93
		1966	0.61	0.49	0.37	0.49	0.24	0.	0.24	0.37	0.61	0.	1.95	1.22	6.59
		1967	2.75	0.	1.15	2.29	1.15	2.98	0.69	0.69	0.46	0.23	0.92	0.	13.31
		1968	0.21	1.50	0.32	0.86	0.97	0.75	0.21	1.29	0.21	0.32	1.29	0.54	8.48
		1969	2.33	0.68	0.38	0.60	0.	0.98	0.38	0.	0.30	0.60	0.30	0.90	7.43
		1970	2.15	0.29	0.59	0.49	1.46	2.64	0.20	0.10	0.20	0.49	1.95	0.98	11.52
		1971	1.00	0.43	2.29	0.72	2.57	2.29	0.29	0.14	1.86	0.57	1.43	1.57	15.16
		1972	1.60	0.80	0.67	0.13	0.27	2.53	0.	0.40	1.20	1.47	2.27	0.93	12.26
		1973	1.16	0.51	0.77	2.31	1.16	0.26	0.39	1.41	1.03	1.29	2.83	1.41	14.53
		1974	0.99	0.83	1.81	0.66	0.	0.	1.98	0.83	0.	1.81	0.83	1.48	11.22
		1975	1.38	0.98	0.59	0.39	0.	1.77	0.98	1.18	0.39	4.72	0.59	0.98	13.97
		1976	0.63	0.52	0.42	0.21	0.63	1.77	1.04	1.36	1.25	0.	0.52	0.	8.35
		1977	0.59	0.35	0.47	0.23	1.87	1.40	0.47	2.34	0.59	0.	1.52	1.64	11.47
		1978	1.24	1.03	0.93	0.83	0.31	0.21	0.52	0.10	1.76	0.	0.52	0.83	8.26
		1979	1.40	1.12	0.93	0.75	0.37	0.56	0.28	1.96	0.56	0.75	0.84	0.47	9.99
		1980	0.96	2.10	0.52	1.05	1.23	0.26	0.18	0.	0.79	0.35	0.70	0.61	8.75
		MEAN	1.18	0.67	0.80	0.81	0.81	1.44	0.50	0.84	0.69	0.80	1.28	1.04	10.87

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
16	6440														
		1964	0.76	0.	1.01	0.76	1.27	4.05	1.01	0.76	0.51	0.25	1.77	5.57	17.73
		1965	0.58	0.	0.58	0.38	0.19	2.69	0.58	3.07	0.96	0.38	2.31	0.77	12.49
		1966	0.81	0.65	0.49	0.65	0.33	0.	0.33	0.49	0.81	0.	2.60	1.63	8.78
		1967	3.33	0.	1.39	2.77	1.39	3.60	0.83	0.83	0.55	0.28	1.11	0.	16.08
		1968	0.30	2.08	0.45	1.19	1.34	1.04	0.30	1.79	0.30	0.45	1.79	0.74	11.76
		1969	2.85	0.83	0.46	0.74	0.	1.19	0.46	0.	0.37	0.74	0.37	1.10	9.10
		1970	3.13	0.43	0.85	0.71	2.13	3.84	0.28	0.14	0.28	0.71	2.85	1.42	16.79
		1971	1.21	0.52	2.76	0.86	3.10	2.76	0.34	0.17	2.24	0.69	1.72	1.89	18.26
		1972	1.81	0.91	0.76	0.15	0.30	2.87	0.	0.45	1.36	1.66	2.57	1.06	13.91
		1973	1.31	0.58	0.87	2.61	1.31	0.29	0.44	1.60	1.16	1.45	3.19	1.60	16.41
		1974	1.27	1.06	2.33	0.85	0.	0.	2.54	1.06	0.	2.33	1.06	1.90	14.39
		1975	1.64	1.17	0.70	0.47	0.	2.11	1.17	1.41	0.47	5.63	0.70	1.17	16.65
		1976	0.72	0.60	0.48	0.24	0.72	2.03	1.19	1.55	1.43	0.	0.60	0.	9.55
		1977	0.56	0.34	0.45	0.22	1.80	1.35	0.45	2.25	0.56	0.	1.46	1.57	11.01
		1978	1.74	1.45	1.31	1.16	0.44	0.29	0.73	0.15	2.47	0.	0.73	1.16	11.61
		1979	1.65	1.32	1.10	0.88	0.44	0.66	0.33	2.31	0.66	0.88	0.99	0.55	11.76
		1980	1.11	2.43	0.61	1.22	1.42	0.30	0.20	0.	0.91	0.41	0.81	0.71	10.13
		MEAN	1.46	0.84	0.98	0.93	0.95	1.71	0.66	1.06	0.89	0.93	1.57	1.34	13.32

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
17	5680	1964	0.68	0.	0.91	0.68	1.13	3.63	0.91	0.68	0.45	0.23	1.59	4.99	15.87
		1965	0.47	0.	0.47	0.32	0.16	2.21	0.47	2.52	0.79	0.32	1.89	0.63	10.25
		1966	0.65	0.52	0.39	0.52	0.26	0.	0.26	0.39	0.65	0.	2.09	1.31	7.06
		1967	3.01	0.	1.25	2.51	1.25	3.26	0.75	0.75	0.50	0.25	1.00	0.	14.55
		1968	0.24	1.67	0.36	0.95	1.07	0.83	0.24	1.43	0.24	0.36	1.43	0.59	9.40
		1969	2.60	0.76	0.42	0.67	0.	1.09	0.42	0.	0.34	0.67	0.34	1.01	8.31
		1970	2.48	0.34	0.68	0.56	1.69	3.05	0.23	0.11	0.23	0.56	2.26	1.13	13.31
		1971	1.09	0.47	2.50	0.78	2.82	2.50	0.31	0.16	2.03	0.63	1.56	1.72	16.58
		1972	1.65	0.82	0.69	0.14	0.27	2.61	0.	0.41	1.23	1.51	2.33	0.96	12.62
		1973	1.17	0.52	0.78	2.35	1.17	0.26	0.39	1.44	1.04	1.31	2.87	1.44	14.75
		1974	1.09	0.91	1.99	0.73	0.	0.	2.18	0.91	0.	1.99	0.91	1.63	12.33
		1975	1.46	1.04	0.62	0.42	0.	1.87	1.04	1.25	0.42	5.00	0.62	1.04	14.78
		1976	0.66	0.55	0.44	0.22	0.66	1.88	1.11	1.44	1.33	0.	0.55	0.	8.86
		1977	0.55	0.33	0.44	0.22	1.77	1.33	0.44	2.21	0.55	0.	1.44	1.55	10.84
		MEAN	1.38	0.63	0.92	0.86	0.94	1.87	0.67	1.05	0.76	0.98	1.60	1.38	13.06

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
1	4500														
		1964	0.	0.	0.	0.	0.	0.	0.89	0.45	0.	0.	0.67	1.79	3.80
		1965	0.29	0.15	0.29	0.44	1.31	1.89	0.	1.60	0.	0.	1.60	0.29	7.85
		1966	0.11	0.34	0.22	0.34	0.45	0.	0.	0.	0.67	0.	1.01	0.90	4.05
		1967	1.25	0.	0.97	0.55	0.69	1.39	1.39	0.28	0.55	0.	0.28	0.14	7.48
		1968	0.33	0.49	0.33	1.14	1.30	0.98	0.	1.30	0.	0.33	2.93	0.81	9.92
		1969	4.12	1.71	0.34	0.69	0.	1.03	0.	0.	0.	1.37	0.86	2.57	12.69
		1970	2.00	0.	0.29	0.14	0.43	3.28	0.	0.29	0.	0.29	1.43	0.71	8.85
		1971	0.24	0.	0.71	0.71	1.42	1.65	0.71	0.24	0.47	0.94	1.18	1.42	9.67
		1972	0.16	0.49	0.	0.16	0.33	1.97	0.	0.	0.16	1.15	1.97	0.49	6.90
		1973	1.12	0.84	1.12	0.70	0.42	0.	0.70	0.28	0.28	0.56	0.98	1.26	8.25
		1974	0.31	0.15	0.93	0.62	0.	0.15	0.93	0.31	0.	1.54	0.15	0.93	6.02
		1975	0.34	0.50	0.84	0.34	0.17	1.68	0.17	1.85	0.34	1.85	0.	0.	8.06
		1976	0.	0.15	0.	0.31	0.31	0.76	0.61	1.53	0.76	0.46	0.15	0.15	5.19
		1977	0.63	0.94	0.	0.	4.69	2.50	0.31	0.	0.	0.31	0.63	0.94	10.94
		1978	1.54	0.22	0.88	2.20	0.22	0.22	0.44	0.	1.76	0.22	0.44	1.10	9.26
		1979	0.91	0.78	0.65	1.17	0.39	0.	0.52	0.78	0.13	1.04	0.39	0.26	7.00
		1980	2.24	1.58	0.26	0.26	1.05	0.26	0.13	0.26	0.66	0.13	0.66	0.26	7.76
		MEAN	0.97	0.52	0.49	0.61	0.82	1.11	0.42	0.54	0.34	0.60	0.90	0.82	8.16

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
2	4600														
		1964	0.	0.	0.	0.	0.	0.	0.78	0.52	0.	0.26	0.52	1.56	3.63
		1965	0.42	0.21	0.10	0.52	0.73	1.04	0.31	1.04	0.	0.10	1.25	0.21	5.92
		1966	0.12	0.59	0.12	0.47	0.36	0.12	0.	0.	0.47	0.	1.19	1.19	4.63
		1967	1.43	0.14	1.58	0.43	0.43	0.86	1.00	0.14	0.29	0.	0.	0.29	6.59
		1968	0.41	0.54	0.14	0.68	0.82	0.95	0.	0.82	0.	0.41	2.59	0.95	8.31
		1969	3.51	1.68	0.42	0.70	0.	1.12	0.14	0.28	0.	0.98	0.56	2.81	12.21
		1970	1.73	0.14	0.58	0.29	0.86	3.45	0.14	0.43	0.	0.14	1.15	0.58	9.49
		1971	0.36	0.	0.36	0.72	0.54	1.43	0.36	0.54	0.36	0.54	1.07	1.25	7.51
		1972	0.39	0.26	0.	0.13	0.39	2.34	0.	0.	0.26	0.78	1.17	0.26	5.98
		1973	0.96	0.53	0.75	0.64	0.53	0.21	0.96	0.43	0.32	0.53	1.07	0.75	7.69
		1974	0.40	0.13	0.67	0.54	0.	0.27	0.94	0.27	0.	1.07	0.	0.40	4.70
		1975	0.48	0.64	0.48	0.64	0.32	1.27	0.	1.43	0.16	0.95	0.16	0.48	7.00
		1976	0.40	0.27	0.	0.40	0.27	0.40	1.35	2.02	1.48	0.67	0.	0.27	7.54
		1977	0.42	0.69	0.14	0.	2.63	1.39	0.42	0.28	0.14	0.	0.55	0.83	7.48
		1978	1.15	0.38	0.77	2.31	0.26	0.	0.	0.13	1.41	0.	0.38	0.26	7.05
		1979	0.27	0.36	1.18	0.73	0.09	0.27	1.00	1.27	0.18	0.64	0.18	0.27	6.45
		1980	1.51	1.32	0.38	0.09	0.85	0.38	0.28	0.19	0.66	0.28	0.66	0.38	6.99
		MEAN	0.88	0.50	0.48	0.58	0.58	0.98	0.48	0.57	0.34	0.44	0.74	0.75	7.32

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
3	4650	1964	0.	0.	0.	0.	0.	0.	0.74	0.49	0.	0.25	0.49	1.48	3.45
		1965	0.51	0.25	0.13	0.63	0.88	1.26	0.38	1.26	0.	0.13	1.52	0.25	7.20
		1966	0.13	0.64	0.13	0.51	0.38	0.13	0.	0.	0.51	0.	1.27	1.27	4.96
		1967	1.70	0.17	1.87	0.51	0.51	1.02	1.19	0.17	0.34	0.	0.	0.34	7.82
		1968	0.40	0.53	0.13	0.66	0.79	0.93	0.	0.79	0.	0.40	2.51	0.93	8.07
		1969	3.96	1.90	0.48	0.79	0.	1.27	0.16	0.32	0.	1.11	0.63	3.17	13.79
		1970	1.45	0.12	0.48	0.24	0.73	2.91	0.12	0.36	0.	0.12	0.97	0.48	7.99
		1971	0.42	0.	0.42	0.84	0.63	1.69	0.42	0.63	0.42	0.63	1.27	1.48	8.87
		1972	0.45	0.30	0.	0.15	0.45	2.68	0.	0.	0.30	0.89	1.34	0.30	6.86
		1973	0.97	0.54	0.75	0.65	0.54	0.22	0.97	0.43	0.32	0.54	1.08	0.75	7.76
		1974	0.41	0.14	0.69	0.55	0.	0.27	0.96	0.27	0.	1.10	0.	0.41	4.80
		1975	0.54	0.71	0.54	0.71	0.36	1.43	0.	1.61	0.18	1.07	0.18	0.54	7.85
		1976	0.42	0.28	0.	0.42	0.28	0.42	1.41	2.11	1.55	0.70	0.	0.28	7.89
		1977	0.46	0.77	0.15	0.	2.94	1.55	0.46	0.31	0.15	0.	0.62	0.93	8.37
		1978	1.36	0.45	0.91	2.73	0.30	0.	0.	0.15	1.67	0.	0.45	0.30	8.34
		1979	0.27	0.36	1.16	0.71	0.09	0.27	0.98	1.25	0.18	0.62	0.18	0.27	6.32
		1980	1.73	1.51	0.43	0.11	0.97	0.43	0.32	0.22	0.75	0.32	0.75	0.43	7.98
		MEAN	0.94	0.54	0.51	0.64	0.61	1.03	0.51	0.61	0.37	0.46	0.78	0.80	7.80

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
4	5200														
		1964	0.	0.	0.	0.	0.	0.	0.80	0.53	0.	0.27	0.53	1.60	3.74
		1965	0.57	0.29	0.14	0.72	1.00	1.44	0.43	1.44	0.	0.14	1.72	0.29	8.18
		1966	0.12	0.62	0.12	0.50	0.37	0.12	0.	0.	0.50	0.	1.25	1.25	4.87
		1967	1.57	0.16	1.72	0.47	0.47	0.94	1.10	0.16	0.31	0.	0.	0.31	7.21
		1968	0.42	0.56	0.14	0.70	0.85	0.99	0.	0.85	0.	0.42	2.68	0.99	8.60
		1969	4.04	1.94	0.48	0.81	0.	1.29	0.16	0.32	0.	1.13	0.65	3.23	14.05
		1970	1.76	0.15	0.59	0.29	0.88	3.51	0.15	0.44	0.	0.15	1.17	0.59	9.66
		1971	0.38	0.	0.38	0.77	0.57	1.53	0.38	0.57	0.38	0.57	1.15	1.34	8.04
		1972	0.39	0.26	0.	0.13	0.39	2.36	0.	0.	0.26	0.79	1.18	0.26	6.03
		1973	1.19	0.66	0.92	0.79	0.66	0.26	1.19	0.53	0.40	0.66	1.32	0.92	9.50
		1974	0.52	0.17	0.87	0.69	0.	0.35	1.21	0.35	0.	1.39	0.	0.52	6.06
		1975	0.49	0.66	0.49	0.66	0.33	1.32	0.	1.48	0.16	0.99	0.16	0.49	7.25
		1976	0.40	0.27	0.	0.40	0.27	0.40	1.33	2.00	1.47	0.67	0.	0.27	7.47
		1977	0.58	0.97	0.19	0.	3.69	1.94	0.58	0.39	0.19	0.	0.78	1.17	10.50
		1978	1.30	0.43	0.87	2.61	0.29	0.	0.	0.14	1.59	0.	0.43	0.29	7.96
		1979	0.25	0.33	1.07	0.66	0.08	0.25	0.91	1.16	0.17	0.58	0.17	0.25	5.87
		1980	1.74	1.52	0.44	0.11	0.98	0.44	0.33	0.22	0.76	0.33	0.76	0.44	8.06
		MEAN	0.98	0.56	0.53	0.64	0.67	1.07	0.53	0.62	0.37	0.47	0.82	0.83	8.10

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
5	4800														
		1964	0.	0.	0.	0.	0.	0.	0.78	0.52	0.	0.26	0.52	1.57	3.66
		1965	0.54	0.27	0.13	0.67	0.94	1.35	0.40	1.35	0.	0.13	1.61	0.27	7.67
		1966	0.11	0.56	0.11	0.45	0.34	0.11	0.	0.	0.45	0.	1.13	1.13	4.40
		1967	1.52	0.15	1.67	0.46	0.46	0.91	1.06	0.15	0.30	0.	0.	0.30	6.98
		1968	0.38	0.51	0.13	0.63	0.76	0.89	0.	0.76	0.	0.38	2.40	0.89	7.72
		1969	3.99	1.91	0.48	0.80	0.	1.28	0.16	0.32	0.	1.12	0.64	3.19	13.87
		1970	1.52	0.13	0.51	0.25	0.76	3.03	0.13	0.38	0.	0.13	1.01	0.51	8.34
		1971	0.29	0.	0.29	0.59	0.44	1.17	0.29	0.44	0.29	0.44	0.88	1.03	6.16
		1972	0.41	0.27	0.	0.14	0.41	2.46	0.	0.	0.27	0.82	1.23	0.27	6.28
		1973	1.09	0.60	0.84	0.72	0.60	0.24	1.09	0.48	0.36	0.60	1.21	0.84	8.69
		1974	0.37	0.12	0.62	0.50	0.	0.25	0.87	0.25	0.	1.00	0.	0.37	4.36
		1975	0.48	0.64	0.48	0.64	0.32	1.28	0.	1.44	0.16	0.96	0.16	0.48	7.03
		1976	0.40	0.26	0.	0.40	0.26	0.40	1.32	1.98	1.45	0.66	0.	0.26	7.39
		1977	0.58	0.97	0.19	0.	3.69	1.94	0.58	0.39	0.19	0.	0.78	1.17	10.50
		1978	1.11	0.37	0.74	2.22	0.25	0.	0.	0.12	1.35	0.	0.37	0.25	6.77
		1979	0.27	0.36	1.16	0.71	0.09	0.27	0.98	1.25	0.18	0.62	0.18	0.27	6.32
		1980	1.73	1.51	0.43	0.11	0.97	0.43	0.32	0.22	0.75	0.32	0.75	0.43	7.98
		MEAN	0.93	0.54	0.49	0.58	0.64	1.00	0.50	0.59	0.34	0.44	0.76	0.78	7.61

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
6	4700														
		1964	0.	0.	0.	0.	0.	0.	0.66	0.44	0.	0.22	0.44	1.32	3.09
		1965	0.48	0.24	0.12	0.60	0.84	1.20	0.36	1.20	0.	0.12	1.44	0.24	6.83
		1966	0.14	0.68	0.14	0.55	0.41	0.14	0.	0.	0.55	0.	1.37	1.37	5.33
		1967	1.66	0.17	1.82	0.50	0.50	1.00	1.16	0.17	0.33	0.	0.	0.33	7.63
		1968	0.41	0.54	0.14	0.68	0.81	0.95	0.	0.81	0.	0.41	2.58	0.95	8.28
		1969	4.16	2.00	0.50	0.83	0.	1.33	0.17	0.33	0.	1.17	0.67	3.33	14.48
		1970	1.36	0.11	0.45	0.23	0.68	2.72	0.11	0.34	0.	0.11	0.91	0.45	7.48
		1971	0.39	0.	0.39	0.78	0.59	1.57	0.39	0.59	0.39	0.59	1.18	1.37	8.24
		1972	0.38	0.25	0.	0.13	0.38	2.28	0.	0.	0.25	0.76	1.14	0.25	5.82
		1973	1.00	0.56	0.78	0.67	0.56	0.22	1.00	0.45	0.33	0.56	1.12	0.78	8.04
		1974	0.47	0.16	0.78	0.63	0.	0.31	1.09	0.31	0.	1.25	0.	0.47	5.47
		1975	0.46	0.61	0.46	0.61	0.31	1.22	0.	1.38	0.15	0.92	0.15	0.46	6.73
		1976	0.43	0.29	0.	0.43	0.29	0.43	1.43	2.14	1.57	0.71	0.	0.29	7.98
		1977	0.51	0.85	0.17	0.	3.24	1.70	0.51	0.34	0.17	0.	0.68	1.02	9.20
		1978	1.35	0.45	0.90	2.69	0.30	0.	0.	0.15	1.65	0.	0.45	0.30	8.23
		1979	0.26	0.34	1.12	0.69	0.09	0.26	0.95	1.20	0.17	0.60	0.17	0.26	6.10
		1980	2.18	1.91	0.54	0.14	1.23	0.54	0.41	0.27	0.95	0.41	0.95	0.54	10.08
		MEAN	0.97	0.57	0.52	0.63	0.64	0.99	0.51	0.60	0.38	0.46	0.78	0.81	7.86

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
7	5000														
		1964	0.	0.	0.	0.	0.	0.	0.70	0.46	0.	0.23	0.46	1.39	3.25
		1965	0.40	0.20	0.10	0.50	0.70	1.00	0.30	1.00	0.	0.10	1.20	0.20	5.69
		1966	0.13	0.65	0.13	0.52	0.39	0.13	0.	0.	0.52	0.	1.31	1.31	5.10
		1967	1.63	0.16	1.80	0.49	0.49	0.98	1.14	0.16	0.33	0.	0.	0.33	7.52
		1968	0.54	0.71	0.18	0.89	1.07	1.25	0.	1.07	0.	0.54	3.39	1.25	10.89
		1969	3.83	1.84	0.46	0.77	0.	1.22	0.15	0.31	0.	1.07	0.61	3.06	13.32
		1970	1.46	0.12	0.49	0.24	0.73	2.92	0.12	0.36	0.	0.12	0.97	0.49	8.03
		1971	0.41	0.	0.41	0.81	0.61	1.63	0.41	0.61	0.41	0.61	1.22	1.42	8.54
		1972	0.42	0.28	0.	0.14	0.42	2.49	0.	0.	0.28	0.83	1.25	0.28	6.37
		1973	1.02	0.57	0.79	0.68	0.57	0.23	1.02	0.45	0.34	0.57	1.13	0.79	8.14
		1974	0.42	0.14	0.70	0.56	0.	0.28	0.98	0.28	0.	1.12	0.	0.42	4.90
		1975	0.49	0.65	0.49	0.65	0.33	1.31	0.	1.47	0.16	0.98	0.16	0.49	7.18
		1976	0.34	0.23	0.	0.34	0.23	0.34	1.14	1.71	1.25	0.57	0.	0.23	6.38
		1977	0.47	0.78	0.16	0.	2.97	1.56	0.47	0.31	0.16	0.	0.63	0.94	8.45
		1978	1.16	0.39	0.77	2.32	0.26	0.	0.	0.13	1.42	0.	0.39	0.26	7.08
		1979	0.25	0.33	1.07	0.66	0.08	0.25	0.91	1.16	0.17	0.58	0.17	0.25	5.87
		1980	1.74	1.52	0.44	0.11	0.98	0.44	0.33	0.22	0.76	0.33	0.76	0.44	8.06
		MEAN	0.92	0.54	0.50	0.61	0.62	1.00	0.48	0.57	0.34	0.45	0.80	0.80	7.63

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
8	4950														
		1964	0.	0.	0.	0.	0.	0.	0.88	0.59	0.	0.30	0.59	1.77	4.13
		1965	0.43	0.22	0.11	0.54	0.76	1.08	0.32	1.08	0.	0.11	1.30	0.22	6.17
		1966	0.13	0.64	0.13	0.51	0.38	0.13	0.	0.	0.51	0.	1.28	1.28	5.00
		1967	1.59	0.16	1.75	0.48	0.48	0.95	1.11	0.16	0.32	0.	0.	0.32	7.31
		1968	0.45	0.60	0.15	0.75	0.90	1.05	0.	0.90	0.	0.45	2.86	1.05	9.19
		1969	3.83	1.84	0.46	0.77	0.	1.22	0.15	0.31	0.	1.07	0.61	3.06	13.32
		1970	1.52	0.13	0.51	0.25	0.76	3.04	0.13	0.38	0.	0.13	1.01	0.51	8.36
		1971	0.44	0.	0.44	0.87	0.65	1.74	0.44	0.65	0.44	0.65	1.31	1.53	9.16
		1972	0.43	0.28	0.	0.14	0.43	2.56	0.	0.	0.28	0.85	1.28	0.28	6.54
		1973	1.04	0.58	0.81	0.69	0.58	0.23	1.04	0.46	0.35	0.58	1.16	0.81	8.32
		1974	0.50	0.17	0.83	0.67	0.	0.33	1.17	0.33	0.	1.33	0.	0.50	5.84
		1975	0.48	0.64	0.48	0.64	0.32	1.27	0.	1.43	0.16	0.95	0.16	0.48	7.00
		1976	0.37	0.24	0.	0.37	0.24	0.37	1.22	1.83	1.34	0.61	0.	0.24	6.82
		1977	0.42	0.71	0.14	0.	2.68	1.41	0.42	0.28	0.14	0.	0.56	0.85	7.62
		1978	1.31	0.44	0.87	2.61	0.29	0.	0.	0.15	1.60	0.	0.44	0.29	7.98
		1979	0.28	0.37	1.21	0.75	0.09	0.28	1.03	1.31	0.19	0.65	0.19	0.28	6.62
		1980	1.85	1.62	0.46	0.12	1.04	0.46	0.35	0.23	0.81	0.35	0.81	0.46	8.54
		MEAN	0.94	0.54	0.52	0.63	0.60	1.01	0.51	0.59	0.36	0.47	0.80	0.82	7.79

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
9	5050														
		1964	0.	0.	0.	0.	0.	0.	0.94	0.63	0.	0.31	0.63	1.88	4.39
		1965	0.54	0.27	0.14	0.68	0.95	1.36	0.41	1.36	0.	0.14	1.63	0.27	7.75
		1966	0.14	0.72	0.14	0.58	0.43	0.14	0.	0.	0.58	0.	1.44	1.44	5.62
		1967	1.80	0.18	1.98	0.54	0.54	1.08	1.26	0.18	0.36	0.	0.	0.36	8.29
		1968	0.46	0.61	0.15	0.76	0.91	1.07	0.	0.91	0.	0.46	2.90	1.07	9.30
		1969	3.78	1.81	0.45	0.76	0.	1.21	0.15	0.30	0.	1.06	0.60	3.02	13.15
		1970	1.44	0.12	0.48	0.24	0.72	2.88	0.12	0.36	0.	0.12	0.96	0.48	7.91
		1971	0.45	0.	0.45	0.90	0.68	1.81	0.45	0.68	0.45	0.68	1.36	1.58	9.49
		1972	0.45	0.30	0.	0.15	0.45	2.68	0.	0.	0.30	0.89	1.34	0.30	6.84
		1973	1.23	0.68	0.96	0.82	0.68	0.27	1.23	0.55	0.41	0.68	1.37	0.96	9.84
		1974	0.58	0.19	0.97	0.78	0.	0.39	1.36	0.39	0.	1.55	0.	0.58	6.80
		1975	0.60	0.80	0.60	0.80	0.40	1.60	0.	1.80	0.20	1.20	0.20	0.60	8.82
		1976	0.46	0.30	0.	0.46	0.30	0.46	1.52	2.28	1.67	0.76	0.	0.30	8.51
		1977	0.54	0.90	0.18	0.	3.42	1.80	0.54	0.36	0.18	0.	0.72	1.08	9.72
		1978	2.01	0.67	1.34	4.02	0.45	0.	0.	0.22	2.46	0.	0.67	0.45	12.29
		1979	0.40	0.53	1.72	1.06	0.13	0.40	1.46	1.85	0.26	0.93	0.26	0.40	9.40
		1980	2.54	2.22	0.63	0.16	1.43	0.63	0.48	0.32	1.11	0.48	1.11	0.63	11.73
		MEAN	1.08	0.64	0.63	0.78	0.71	1.10	0.61	0.71	0.46	0.54	0.89	0.90	9.07

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
10	4800	1964	0.	0.	0.	0.	0.	0.	0.77	0.51	0.	0.26	0.51	1.53	3.57
		1965	0.45	0.23	0.11	0.57	0.80	1.14	0.34	1.14	0.	0.11	1.36	0.23	6.48
		1966	0.13	0.67	0.13	0.54	0.40	0.13	0.	0.	0.54	0.	1.35	1.35	5.26
		1967	1.74	0.17	1.91	0.52	0.52	1.04	1.22	0.17	0.35	0.	0.	0.35	8.00
		1968	0.40	0.54	0.13	0.67	0.81	0.94	0.	0.81	0.	0.40	2.56	0.94	8.22
		1969	3.96	1.90	0.47	0.79	0.	1.27	0.16	0.32	0.	1.11	0.63	3.17	13.77
		1970	1.58	0.13	0.53	0.26	0.79	3.17	0.13	0.40	0.	0.13	1.06	0.53	8.71
		1971	0.40	0.	0.40	0.80	0.60	1.61	0.40	0.60	0.40	0.60	1.21	1.41	8.45
		1972	0.51	0.34	0.	0.17	0.51	3.04	0.	0.	0.34	1.01	1.52	0.34	7.76
		1973	0.93	0.52	0.72	0.62	0.52	0.21	0.93	0.41	0.31	0.52	1.03	0.72	7.45
		1974	0.44	0.15	0.74	0.59	0.	0.29	1.03	0.29	0.	1.18	0.	0.44	5.16
		1975	0.47	0.63	0.47	0.63	0.32	1.26	0.	1.42	0.16	0.95	0.16	0.47	6.94
		1976	0.35	0.23	0.	0.35	0.23	0.35	1.15	1.73	1.27	0.58	0.	0.23	6.45
		1977	0.55	0.92	0.18	0.	3.50	1.84	0.55	0.37	0.18	0.	0.74	1.11	9.95
		1978	1.16	0.39	0.77	2.32	0.26	0.	0.	0.13	1.42	0.	0.39	0.26	7.08
		1979	0.26	0.34	1.12	0.69	0.09	0.26	0.95	1.20	0.17	0.60	0.17	0.26	6.10
		1980	2.18	1.91	0.54	0.14	1.23	0.54	0.41	0.27	0.95	0.41	0.95	0.54	10.08
		MEAN	0.98	0.57	0.52	0.61	0.66	1.07	0.51	0.58	0.36	0.47	0.81	0.82	7.97

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
11	4840														
		1964	0.	0.	0.	0.	0.	0.	0.67	0.45	0.	0.22	0.45	1.34	3.13
		1965	0.45	0.22	0.11	0.56	0.78	1.12	0.34	1.12	0.	0.11	1.34	0.22	6.37
		1966	0.13	0.64	0.13	0.52	0.39	0.13	0.	0.	0.52	0.	1.29	1.29	5.03
		1967	1.64	0.16	1.80	0.49	0.49	0.98	1.15	0.16	0.33	0.	0.	0.33	7.54
		1968	0.39	0.51	0.13	0.64	0.77	0.90	0.	0.77	0.	0.39	2.44	0.90	7.83
		1969	3.54	1.70	0.43	0.71	0.	1.13	0.14	0.28	0.	0.99	0.57	2.83	12.33
		1970	1.48	0.12	0.49	0.25	0.74	2.97	0.12	0.37	0.	0.12	0.99	0.49	8.16
		1971	0.38	0.	0.38	0.77	0.58	1.54	0.38	0.58	0.38	0.58	1.15	1.34	8.07
		1972	0.44	0.29	0.	0.15	0.44	2.63	0.	0.	0.29	0.88	1.31	0.29	6.71
		1973	1.12	0.62	0.87	0.75	0.62	0.25	1.12	0.50	0.37	0.62	1.25	0.87	8.97
		1974	0.45	0.15	0.76	0.60	0.	0.30	1.06	0.30	0.	1.21	0.	0.45	5.29
		1975	0.52	0.69	0.52	0.69	0.34	1.38	0.	1.55	0.17	1.03	0.17	0.52	7.59
		1976	0.40	0.27	0.	0.40	0.27	0.40	1.34	2.00	1.47	0.67	0.	0.27	7.48
		1977	0.47	0.78	0.16	0.	2.98	1.57	0.47	0.31	0.16	0.	0.63	0.94	8.46
		MEAN	0.88	0.48	0.45	0.51	0.65	1.17	0.52	0.60	0.27	0.49	0.83	0.86	7.71

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
12	4880	1964	0.	0.	0.	0.	0.	0.	0.89	0.60	0.	0.30	0.60	1.79	4.17
		1965	0.52	0.26	0.13	0.65	0.91	1.30	0.39	1.30	0.	0.13	1.56	0.26	7.43
		1966	0.16	0.78	0.16	0.63	0.47	0.16	0.	0.	0.63	0.	1.57	1.57	6.12
		1967	1.80	0.18	1.98	0.54	0.54	1.08	1.26	0.18	0.36	0.	0.	0.36	8.29
		1968	0.44	0.59	0.15	0.74	0.88	1.03	0.	0.88	0.	0.44	2.80	1.03	8.98
		1969	3.17	1.52	0.38	0.63	0.	1.01	0.13	0.25	0.	0.89	0.51	2.53	11.02
		1970	1.47	0.12	0.49	0.24	0.73	2.93	0.12	0.37	0.	0.12	0.98	0.49	8.06
		1971	0.37	0.	0.37	0.73	0.55	1.46	0.37	0.55	0.37	0.55	1.10	1.28	7.68
		1972	0.44	0.29	0.	0.15	0.44	2.64	0.	0.	0.29	0.88	1.32	0.29	6.74
		1973	1.41	0.78	1.10	0.94	0.78	0.31	1.41	0.63	0.47	0.78	1.57	1.10	11.27
		1974	0.50	0.17	0.84	0.67	0.	0.34	1.18	0.34	0.	1.35	0.	0.50	5.89
		1975	0.49	0.66	0.49	0.66	0.33	1.31	0.	1.48	0.16	0.99	0.16	0.49	7.23
		1976	0.34	0.23	0.	0.34	0.23	0.34	1.14	1.72	1.26	0.57	0.	0.23	6.41
		1977	0.53	0.89	0.18	0.	3.38	1.78	0.53	0.36	0.18	0.	0.71	1.07	9.60
		1978	1.71	0.57	1.14	3.43	0.38	0.	0.	0.19	2.10	0.	0.57	0.38	10.48
		1979	0.32	0.42	1.37	0.84	0.11	0.32	1.16	1.47	0.21	0.74	0.21	0.32	7.48
		1980	1.97	1.72	0.49	0.12	1.11	0.49	0.37	0.25	0.86	0.37	0.86	0.49	9.10
		MEAN	0.97	0.57	0.57	0.70	0.68	1.04	0.56	0.62	0.40	0.48	0.85	0.84	8.26

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
13	5000														
		1964	0.	0.	0.	0.	0.	0.	0.90	0.60	0.	0.30	0.60	1.80	4.21
		1965	0.49	0.24	0.12	0.61	0.85	1.21	0.36	1.21	0.	0.12	1.46	0.24	6.92
		1966	0.14	0.71	0.14	0.57	0.43	0.14	0.	0.	0.57	0.	1.42	1.42	5.55
		1967	1.85	0.18	2.03	0.55	0.55	1.11	1.29	0.18	0.37	0.	0.	0.37	8.49
		1968	0.43	0.57	0.14	0.71	0.85	0.99	0.	0.85	0.	0.43	2.70	0.99	8.67
		1969	3.69	1.77	0.44	0.74	0.	1.18	0.15	0.30	0.	1.03	0.59	2.95	12.84
		1970	1.53	0.13	0.51	0.25	0.76	3.05	0.13	0.38	0.	0.13	1.02	0.51	8.39
		1971	0.36	0.	0.36	0.72	0.54	1.43	0.36	0.54	0.36	0.54	1.08	1.25	7.53
		1972	0.48	0.32	0.	0.16	0.48	2.86	0.	0.	0.32	0.95	1.43	0.32	7.32
		1973	0.98	0.55	0.77	0.66	0.55	0.22	0.98	0.44	0.33	0.55	1.09	0.77	7.87
		1974	0.48	0.16	0.79	0.64	0.	0.32	1.11	0.32	0.	1.27	0.	0.48	5.56
		1975	0.50	0.66	0.50	0.66	0.33	1.32	0.	1.48	0.16	0.99	0.16	0.50	7.26
		1976	0.36	0.24	0.	0.36	0.24	0.36	1.21	1.82	1.33	0.61	0.	0.24	6.78
		1977	0.51	0.85	0.17	0.	3.23	1.70	0.51	0.34	0.17	0.	0.68	1.02	9.19
		MEAN	0.91	0.50	0.47	0.52	0.68	1.21	0.54	0.61	0.27	0.49	0.87	0.91	7.98

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
15	5200														
		1964	0.	0.	0.	0.	0.	0.	0.90	0.60	0.	0.30	0.60	1.80	4.19
		1965	0.51	0.26	0.13	0.64	0.90	1.28	0.38	1.28	0.	0.13	1.53	0.26	7.29
		1966	0.14	0.71	0.14	0.57	0.43	0.14	0.	0.	0.57	0.	1.43	1.43	5.56
		1967	1.96	0.20	2.16	0.59	0.59	1.18	1.37	0.20	0.39	0.	0.	0.39	9.02
		1968	0.38	0.51	0.13	0.64	0.77	0.90	0.	0.77	0.	0.38	2.44	0.90	7.82
		1969	3.71	1.78	0.44	0.74	0.	1.19	0.15	0.30	0.	1.04	0.59	2.97	12.90
		1970	1.61	0.13	0.54	0.27	0.81	3.23	0.13	0.40	0.	0.13	1.08	0.54	8.87
		1971	0.39	0.	0.39	0.78	0.59	1.57	0.39	0.59	0.39	0.59	1.18	1.37	8.24
		1972	0.45	0.30	0.	0.15	0.45	2.68	0.	0.	0.30	0.89	1.34	0.30	6.86
		1973	0.96	0.53	0.75	0.64	0.53	0.21	0.96	0.43	0.32	0.53	1.07	0.75	7.67
		1974	0.49	0.16	0.82	0.65	0.	0.33	1.15	0.33	0.	1.31	0.	0.49	5.73
		1975	0.44	0.59	0.44	0.59	0.30	1.18	0.	1.33	0.15	0.89	0.15	0.44	6.51
		1976	0.37	0.25	0.	0.37	0.25	0.37	1.23	1.85	1.35	0.62	0.	0.25	6.89
		1977	0.47	0.78	0.16	0.	2.96	1.56	0.47	0.31	0.16	0.	0.62	0.93	8.40
		1978	1.52	0.51	1.01	3.04	0.34	0.	0.	0.17	1.86	0.	0.51	0.34	9.29
		1979	0.31	0.41	1.33	0.82	0.10	0.31	1.13	1.43	0.20	0.72	0.20	0.31	7.27
		1980	2.08	1.82	0.52	0.13	1.17	0.52	0.39	0.26	0.91	0.39	0.91	0.52	9.62
		MEAN	0.98	0.55	0.55	0.66	0.64	1.05	0.54	0.60	0.38	0.47	0.81	0.83	8.06

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN	ELEVATION	YEAR					MONTH (INCHES)							TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
16	5900														
		1964	0.	0.	0.	0.	0.	0.	0.83	0.55	0.	0.28	0.55	1.66	3.88
		1965	0.63	0.31	0.16	0.78	1.10	1.57	0.47	1.57	0.	0.16	1.88	0.31	8.94
		1966	0.17	0.87	0.17	0.70	0.52	0.17	0.	0.	0.70	0.	1.75	1.75	6.82
		1967	2.06	0.21	2.26	0.62	0.62	1.24	1.44	0.21	0.41	0.	0.	0.41	9.47
		1968	0.44	0.59	0.15	0.74	0.89	1.03	0.	0.89	0.	0.44	2.81	1.03	9.01
		1969	3.64	1.75	0.44	0.73	0.	1.16	0.15	0.29	0.	1.02	0.58	2.91	12.66
		1970	2.15	0.18	0.72	0.36	1.07	4.30	0.18	0.54	0.	0.18	1.43	0.72	11.82
		1971	0.60	0.	0.60	1.19	0.89	2.38	0.60	0.89	0.60	0.89	1.79	2.09	12.52
		1972	0.56	0.37	0.	0.19	0.56	3.34	0.	0.	0.37	1.11	1.67	0.37	8.54
		1973	1.46	0.81	1.14	0.97	0.81	0.32	1.46	0.65	0.49	0.81	1.62	1.14	11.68
		1974	0.60	0.20	1.01	0.80	0.	0.40	1.41	0.40	0.	1.61	0.	0.60	7.04
		1975	0.73	0.97	0.73	0.97	0.48	1.94	0.	2.18	0.24	1.45	0.24	0.73	10.66
		1976	0.48	0.32	0.	0.48	0.32	0.48	1.60	2.39	1.76	0.80	0.	0.32	8.94
		1977	0.66	1.09	0.22	0.	4.15	2.19	0.66	0.44	0.22	0.	0.87	1.31	11.80
		1978	1.99	0.66	1.33	3.98	0.44	0.	0.	0.22	2.43	0.	0.66	0.44	12.15
		1979	0.40	0.53	1.72	1.06	0.13	0.40	1.46	1.85	0.26	0.93	0.26	0.40	9.40
		1980	2.54	2.22	0.63	0.16	1.43	0.63	0.48	0.32	1.11	0.48	1.11	0.63	11.73
		MEAN	1.18	0.68	0.69	0.85	0.83	1.33	0.66	0.78	0.50	0.59	1.00	0.98	10.07

TABLE B-2-2; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COW CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
17	6200	1964	0.	0.	0.	0.	0.	0.	0.95	0.63	0.	0.32	0.63	1.89	4.42
		1965	0.65	0.32	0.16	0.81	1.14	1.62	0.49	1.62	0.	0.16	1.95	0.32	9.25
		1966	0.17	0.85	0.17	0.68	0.51	0.17	0.	0.	0.68	0.	1.70	1.70	6.63
		1967	2.19	0.22	2.41	0.66	0.66	1.31	1.53	0.22	0.44	0.	0.	0.44	10.06
		1968	0.50	0.67	0.17	0.83	1.00	1.17	0.	1.00	0.	0.50	3.17	1.17	10.18
		1969	3.70	1.78	0.44	0.74	0.	1.18	0.15	0.30	0.	1.04	0.59	2.96	12.87
		1970	1.78	0.15	0.59	0.30	0.89	3.55	0.15	0.44	0.	0.15	1.18	0.59	9.77
		1971	0.47	0.	0.47	0.94	0.70	1.87	0.47	0.70	0.47	0.70	1.40	1.64	9.82
		1972	0.61	0.41	0.	0.20	0.61	3.65	0.	0.	0.41	1.22	1.82	0.41	9.32
		1973	1.52	0.84	1.18	1.01	0.84	0.34	1.52	0.67	0.51	0.84	1.69	1.18	12.14
		1974	0.63	0.21	1.06	0.85	0.	0.42	1.48	0.42	0.	1.69	0.	0.63	7.40
		1975	0.74	0.99	0.74	0.99	0.49	1.97	0.	2.22	0.25	1.48	0.25	0.74	10.85
		1976	0.42	0.28	0.	0.42	0.28	0.42	1.41	2.12	1.56	0.71	0.	0.28	7.92
		1977	0.64	1.06	0.21	0.	4.04	2.13	0.64	0.43	0.21	0.	0.85	1.28	11.49
		1978	2.07	0.69	1.38	4.15	0.46	0.	0.	0.23	2.54	0.	0.69	0.46	12.68
		1979	0.35	0.47	1.53	0.94	0.12	0.35	1.29	1.65	0.24	0.82	0.24	0.35	8.35
		1980	2.58	2.26	0.64	0.16	1.45	0.64	0.48	0.32	1.13	0.48	1.13	0.64	11.93
		MEAN	1.19	0.70	0.70	0.85	0.82	1.30	0.66	0.76	0.49	0.59	1.02	0.98	10.08

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
3	5500														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.38	1.01	0.76	0.38	2.53
		1964	0.20	0.10	0.41	0.92	1.02	1.23	0.31	0.92	0.10	0.72	0.61	1.33	7.88
		1965	0.67	0.40	0.54	2.28	2.01	1.61	0.80	1.47	0.40	0.	1.07	0.94	12.20
		1966	0.32	0.21	0.11	0.32	0.21	1.06	0.21	0.11	1.27	0.	0.53	1.70	6.05
		1967	1.16	0.19	0.77	1.94	0.58	1.36	0.58	0.39	0.77	0.	0.58	0.	8.33
		1968	0.29	1.56	0.20	0.29	0.10	0.98	0.59	0.68	0.	0.59	0.78	0.59	6.65
		1969	1.59	0.95	0.53	0.95	0.74	2.12	0.11	0.21	0.	0.32	0.11	0.63	8.25
		1970	0.28	0.19	0.09	0.65	0.46	1.39	0.56	0.19	0.	0.19	1.02	1.49	6.50
		1971	0.33	0.65	0.33	1.20	1.41	0.87	0.33	0.87	0.11	0.65	1.52	0.98	9.25
		1972	0.	0.28	0.14	0.21	0.28	1.48	0.	0.28	0.56	1.13	0.56	0.42	5.36
		1973	0.70	0.78	0.87	0.61	0.52	0.35	0.52	0.78	0.09	0.70	0.78	0.87	7.57
		1974	0.64	0.35	0.56	0.49	0.	0.	0.28	0.49	0.	1.69	0.71	0.56	5.79
		1975	0.96	0.32	1.12	1.28	0.88	0.24	0.56	0.32	1.20	1.28	0.24	0.08	8.49
		1976	0.49	0.68	0.39	1.76	0.39	0.59	2.54	0.59	1.76	0.88	0.39	0.20	10.66
		1977	0.71	0.28	0.42	0.56	1.69	2.12	0.	1.27	0.	0.	0.85	1.69	9.59
		1978	0.91	1.43	1.83	2.09	0.13	0.	0.91	0.	3.91	0.26	1.04	0.91	13.43
		1979	1.32	0.24	0.	0.84	0.36	0.24	1.56	2.52	0.	0.24	0.60	0.36	8.28
		1980	1.57	0.41	1.24	0.08	2.98	0.	0.66	0.	0.33	0.41	0.58	0.08	8.35
		MEAN	0.71	0.53	0.56	0.97	0.81	0.92	0.62	0.65	0.64	0.56	0.71	0.73	8.39

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
4	5200														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.37	0.98	0.73	0.37	2.45
		1964	0.23	0.11	0.45	1.02	1.13	1.36	0.34	1.02	0.11	0.79	0.68	1.47	8.73
		1965	0.66	0.40	0.53	2.26	1.99	1.59	0.80	1.46	0.40	0.	1.06	0.93	12.08
		1966	0.35	0.23	0.12	0.35	0.23	1.17	0.23	0.12	1.41	0.	0.59	1.88	6.68
		1967	1.31	0.22	0.88	2.19	0.66	1.53	0.66	0.44	0.88	0.	0.66	0.	9.41
		1968	0.34	1.84	0.23	0.34	0.11	1.15	0.69	0.80	0.	0.69	0.92	0.69	7.80
		1969	1.32	0.79	0.44	0.79	0.62	1.76	0.09	0.18	0.	0.26	0.09	0.53	6.88
		1970	0.27	0.18	0.09	0.64	0.46	1.37	0.55	0.18	0.	0.18	1.00	1.46	6.38
		1971	0.42	0.83	0.42	1.53	1.80	1.11	0.42	1.11	0.14	0.83	1.94	1.25	11.79
		1972	0.	0.33	0.17	0.25	0.33	1.75	0.	0.33	0.67	1.33	0.67	0.50	6.34
		1973	0.76	0.85	0.95	0.66	0.57	0.38	0.57	0.85	0.09	0.76	0.85	0.95	8.25
		1974	0.74	0.41	0.66	0.57	0.	0.	0.33	0.57	0.	1.97	0.82	0.66	6.72
		1975	1.04	0.35	1.21	1.38	0.95	0.26	0.60	0.35	1.30	1.38	0.26	0.09	9.16
		1976	0.45	0.63	0.36	1.62	0.36	0.54	2.34	0.54	1.62	0.81	0.36	0.18	9.80
		1977	0.74	0.29	0.44	0.59	1.77	2.21	0.	1.33	0.	0.	0.88	1.77	10.02
		1978	0.93	1.46	1.85	2.12	0.13	0.	0.93	0.	3.97	0.26	1.06	0.93	13.63
		1979	1.39	0.25	0.	0.89	0.38	0.25	1.65	2.66	0.	0.25	0.63	0.38	8.75
		1980	1.87	0.49	1.48	0.10	3.55	0.	0.79	0.	0.39	0.49	0.69	0.10	9.96
		MEAN	0.75	0.57	0.60	1.01	0.88	0.96	0.64	0.70	0.67	0.61	0.77	0.78	8.95

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
5	5400														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.39	1.04	0.78	0.39	2.60
		1964	0.22	0.11	0.43	0.97	1.08	1.29	0.32	0.97	0.11	0.75	0.65	1.40	8.29
		1965	0.71	0.43	0.57	2.43	2.14	1.71	0.86	1.57	0.43	0.	1.14	1.00	13.00
		1966	0.34	0.23	0.11	0.34	0.23	1.15	0.23	0.11	1.37	0.	0.57	1.83	6.53
		1967	1.10	0.18	0.73	1.83	0.55	1.28	0.55	0.37	0.73	0.	0.55	0.	7.89
		1968	0.28	1.48	0.19	0.28	0.09	0.93	0.56	0.65	0.	0.56	0.74	0.56	6.31
		1969	1.73	1.04	0.58	1.04	0.81	2.31	0.12	0.23	0.	0.35	0.12	0.69	8.99
		1970	0.29	0.20	0.10	0.69	0.49	1.47	0.59	0.20	0.	0.20	1.08	1.57	6.88
		1971	0.31	0.62	0.31	1.14	1.35	0.83	0.31	0.83	0.10	0.62	1.45	0.93	8.83
		1972	0.	0.37	0.19	0.28	0.37	1.95	0.	0.37	0.74	1.49	0.74	0.56	7.06
		1973	0.85	0.95	1.06	0.74	0.63	0.42	0.63	0.95	0.11	0.85	0.95	1.06	9.20
		1974	0.65	0.36	0.58	0.50	0.	0.	0.29	0.50	0.	1.73	0.72	0.58	5.90
		1975	1.12	0.37	1.31	1.50	1.03	0.28	0.66	0.37	1.40	1.50	0.28	0.09	9.92
		1976	0.46	0.65	0.37	1.67	0.37	0.56	2.42	0.56	1.67	0.84	0.37	0.19	10.13
		1977	0.74	0.30	0.45	0.59	1.78	2.23	0.	1.34	0.	0.	0.89	1.78	10.10
		1978	0.91	1.43	1.82	2.08	0.13	0.	0.91	0.	3.89	0.26	1.04	0.91	13.36
		1979	1.27	0.23	0.	0.81	0.35	0.23	1.50	2.43	0.	0.23	0.58	0.35	7.98
		1980	1.19	0.31	0.94	0.06	2.25	0.	0.50	0.	0.25	0.31	0.44	0.06	6.30
		MEAN	0.72	0.55	0.57	1.00	0.81	0.98	0.62	0.68	0.66	0.60	0.73	0.78	8.67

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
7	6400	1963	0.	0.	0.	0.	0.	0.	0.	0.	0.58	1.55	1.16	0.58	3.87
		1964	0.27	0.13	0.53	1.20	1.34	1.60	0.40	1.20	0.13	0.94	0.80	1.74	10.29
		1965	0.76	0.46	0.61	2.60	2.29	1.83	0.92	1.68	0.46	0.	1.22	1.07	13.91
		1966	0.46	0.31	0.15	0.46	0.31	1.54	0.31	0.15	1.85	0.	0.77	2.46	8.78
		1967	1.69	0.28	1.13	2.82	0.85	1.97	0.85	0.56	1.13	0.	0.85	0.	12.12
		1968	0.44	2.36	0.30	0.44	0.15	1.48	0.89	1.03	0.	0.89	1.18	0.89	10.05
		1969	1.96	1.18	0.65	1.18	0.92	2.62	0.13	0.26	0.	0.39	0.13	0.78	10.20
		1970	0.42	0.28	0.14	0.99	0.71	2.12	0.85	0.28	0.	0.28	1.55	2.26	9.87
		1971	0.43	0.86	0.43	1.57	1.86	1.14	0.43	1.14	0.14	0.86	2.00	1.29	12.15
		1972	0.	0.48	0.24	0.36	0.48	2.50	0.	0.48	0.95	1.91	0.95	0.71	9.05
		1973	1.13	1.27	1.41	0.99	0.85	0.56	0.85	1.27	0.14	1.13	1.27	1.41	12.28
		1974	0.87	0.48	0.77	0.68	0.	0.	0.39	0.68	0.	2.32	0.97	0.77	7.92
		1975	1.39	0.46	1.63	1.86	1.28	0.35	0.81	0.46	1.74	1.86	0.35	0.12	12.32
		1976	0.49	0.68	0.39	1.76	0.39	0.59	2.54	0.59	1.76	0.88	0.39	0.20	10.65
		1977	0.88	0.35	0.53	0.70	2.10	2.63	0.	1.58	0.	0.	1.05	2.10	11.91
		MEAN	0.81	0.68	0.64	1.26	0.97	1.48	0.67	0.81	0.64	0.86	0.97	1.08	10.89

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
8	5800														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.41	1.08	0.81	0.41	2.71
		1964	0.21	0.10	0.42	0.94	1.05	1.25	0.31	0.94	0.10	0.73	0.63	1.36	8.05
		1965	0.71	0.42	0.57	2.41	2.12	1.70	0.85	1.56	0.42	0.	1.13	0.99	12.89
		1966	0.37	0.25	0.12	0.37	0.25	1.25	0.25	0.12	1.49	0.	0.62	1.99	7.10
		1967	1.14	0.19	0.76	1.90	0.57	1.33	0.57	0.38	0.76	0.	0.57	0.	8.19
		1968	0.32	1.70	0.21	0.32	0.11	1.06	0.64	0.74	0.	0.64	0.85	0.64	7.22
		1969	2.34	1.40	0.78	1.40	1.09	3.12	0.16	0.31	0.	0.47	0.16	0.94	12.16
		1970	0.33	0.22	0.11	0.77	0.55	1.66	0.66	0.22	0.	0.22	1.22	1.77	7.75
		1971	0.40	0.81	0.40	1.48	1.75	1.08	0.40	1.08	0.13	0.81	1.88	1.21	11.43
		1972	0.	0.44	0.22	0.33	0.44	2.30	0.	0.44	0.88	1.75	0.88	0.66	8.32
		1973	0.90	1.01	1.12	0.78	0.67	0.45	0.67	1.01	0.11	0.90	1.01	1.12	9.74
		1974	0.68	0.38	0.61	0.53	0.	0.	0.30	0.53	0.	1.83	0.76	0.61	6.24
		1975	1.20	0.40	1.40	1.60	1.10	0.30	0.70	0.40	1.50	1.60	0.30	0.10	10.59
		1976	0.42	0.59	0.34	1.51	0.34	0.50	2.18	0.50	1.51	0.76	0.34	0.17	9.15
		1977	0.81	0.32	0.48	0.65	1.94	2.42	0.	1.45	0.	0.	0.97	1.94	10.98
		MEAN	0.71	0.59	0.55	1.08	0.86	1.33	0.56	0.70	0.53	0.73	0.82	0.94	9.39

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
9	6200														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.55	1.46	1.09	0.55	3.64
		1964	0.27	0.14	0.54	1.22	1.35	1.62	0.41	1.22	0.14	0.95	0.81	1.76	10.40
		1965	0.83	0.50	0.67	2.84	2.50	2.00	1.00	1.84	0.50	0.	1.34	1.17	15.19
		1966	0.39	0.26	0.13	0.39	0.26	1.29	0.26	0.13	1.55	0.	0.65	2.07	7.36
		1967	1.54	0.26	1.03	2.57	0.77	1.80	0.77	0.51	1.03	0.	0.77	0.	11.07
		1968	0.37	1.98	0.25	0.37	0.12	1.24	0.74	0.87	0.	0.74	0.99	0.74	8.41
		1969	2.00	1.20	0.67	1.20	0.93	2.67	0.13	0.27	0.	0.40	0.13	0.80	10.40
		1970	0.35	0.23	0.12	0.81	0.58	1.74	0.70	0.23	0.	0.23	1.28	1.86	8.14
		1971	0.47	0.95	0.47	1.74	2.05	1.26	0.47	1.26	0.16	0.95	2.21	1.42	13.42
		1972	0.	0.47	0.24	0.36	0.47	2.49	0.	0.47	0.95	1.90	0.95	0.71	9.02
		1973	0.85	0.96	1.07	0.75	0.64	0.43	0.64	0.96	0.11	0.85	0.96	1.07	9.28
		1974	0.80	0.44	0.71	0.62	0.	0.	0.36	0.62	0.	2.13	0.89	0.71	7.28
		1975	1.31	0.44	1.53	1.75	1.20	0.33	0.77	0.44	1.64	1.75	0.33	0.11	11.59
		1976	0.43	0.60	0.34	1.53	0.34	0.51	2.21	0.51	1.53	0.77	0.34	0.17	9.27
		1977	0.76	0.31	0.46	0.61	1.83	2.29	0.	1.37	0.	0.	0.92	1.83	10.38
		MEAN	0.74	0.62	0.58	1.19	0.93	1.40	0.60	0.76	0.58	0.80	0.90	0.99	10.10

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
10	5400														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.36	0.97	0.73	0.36	2.42
		1964	0.21	0.10	0.41	0.93	1.03	1.24	0.31	0.93	0.10	0.72	0.62	1.34	7.95
		1965	0.68	0.41	0.55	2.32	2.04	1.64	0.82	1.50	0.41	0.	1.09	0.95	12.40
		1966	0.32	0.22	0.11	0.32	0.22	1.08	0.22	0.11	1.29	0.	0.54	1.72	6.14
		1967	1.28	0.21	0.85	2.13	0.64	1.49	0.64	0.43	0.85	0.	0.64	0.	9.16
		1968	0.36	1.95	0.24	0.36	0.12	1.22	0.73	0.85	0.	0.73	0.97	0.73	8.27
		1969	1.65	0.99	0.55	0.99	0.77	2.20	0.11	0.22	0.	0.33	0.11	0.66	8.57
		1970	0.33	0.22	0.11	0.77	0.55	1.66	0.66	0.22	0.	0.22	1.22	1.77	7.74
		1971	0.40	0.79	0.40	1.46	1.72	1.06	0.40	1.06	0.13	0.79	1.85	1.19	11.25
		1972	0.	0.34	0.17	0.26	0.34	1.81	0.	0.34	0.69	1.38	0.69	0.52	6.55
		1973	0.77	0.86	0.96	0.67	0.57	0.38	0.57	0.86	0.10	0.77	0.86	0.96	8.33
		1974	0.81	0.45	0.72	0.63	0.	0.	0.36	0.63	0.	2.16	0.90	0.72	7.39
		1975	0.99	0.33	1.15	1.32	0.91	0.25	0.58	0.33	1.24	1.32	0.25	0.08	8.74
		1976	0.43	0.60	0.34	1.53	0.34	0.51	2.21	0.51	1.53	0.77	0.34	0.17	9.28
		1977	0.72	0.29	0.43	0.57	1.72	2.16	0.	1.29	0.	0.	0.86	1.72	9.77
		MEAN	0.65	0.56	0.51	1.03	0.79	1.21	0.55	0.67	0.49	0.69	0.79	0.87	8.78

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
11	6800														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.65	1.74	1.31	0.65	4.35
		1964	0.34	0.17	0.69	1.54	1.71	2.06	0.51	1.54	0.17	1.20	1.03	2.23	13.20
		1965	0.89	0.53	0.71	3.02	2.66	2.13	1.06	1.95	0.53	0.	1.42	1.24	16.14
		1966	0.50	0.34	0.17	0.50	0.34	1.68	0.34	0.17	2.02	0.	0.84	2.69	9.59
		1967	1.95	0.33	1.30	3.25	0.98	2.28	0.98	0.65	1.30	0.	0.98	0.	13.98
		1968	0.48	2.56	0.32	0.48	0.16	1.60	0.96	1.12	0.	0.96	1.28	0.96	10.88
		1969	3.08	1.85	1.03	1.85	1.44	4.11	0.21	0.41	0.	0.62	0.21	1.23	16.04
		1970	0.48	0.32	0.16	1.12	0.80	2.41	0.96	0.32	0.	0.32	1.76	2.57	11.23
		1971	0.62	1.23	0.62	2.26	2.67	1.65	0.62	1.65	0.21	1.23	2.88	1.85	17.49
		1972	0.	0.49	0.25	0.37	0.49	2.59	0.	0.49	0.99	1.98	0.99	0.74	9.39
		1973	1.04	1.17	1.30	0.91	0.78	0.52	0.78	1.17	0.13	1.04	1.17	1.30	11.31
		1974	1.06	0.59	0.94	0.82	0.	0.	0.47	0.82	0.	2.82	1.18	0.94	9.64
		1975	1.51	0.50	1.76	2.01	1.38	0.38	0.88	0.50	1.88	2.01	0.38	0.13	13.32
		1976	0.51	0.71	0.41	1.82	0.41	0.61	2.64	0.61	1.82	0.91	0.41	0.20	11.05
		1977	0.93	0.37	0.56	0.75	2.24	2.79	0.	1.68	0.	0.	1.12	2.24	12.67
		MEAN	0.94	0.78	0.71	1.45	1.12	1.73	0.73	0.92	0.68	0.97	1.11	1.24	12.38

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
12	5800														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.49	1.32	0.99	0.49	3.29
		1964	0.26	0.13	0.52	1.18	1.31	1.57	0.39	1.18	0.13	0.92	0.79	1.71	10.10
		1965	0.80	0.48	0.64	2.73	2.41	1.93	0.97	1.77	0.48	0.	1.29	1.13	14.64
		1966	0.39	0.26	0.13	0.39	0.26	1.31	0.26	0.13	1.57	0.	0.65	2.09	7.46
		1967	1.43	0.24	0.95	2.38	0.72	1.67	0.72	0.48	0.95	0.	0.72	0.	10.25
		1968	0.50	2.68	0.34	0.50	0.17	1.67	1.00	1.17	0.	1.00	1.34	1.00	11.39
		1969	2.51	1.50	0.84	1.50	1.17	3.34	0.17	0.33	0.	0.50	0.17	1.00	13.04
		1970	0.41	0.27	0.14	0.95	0.68	2.03	0.81	0.27	0.	0.27	1.49	2.17	9.49
		1971	0.45	0.90	0.45	1.66	1.96	1.21	0.45	1.21	0.15	0.90	2.11	1.36	12.81
		1972	0.	0.27	0.14	0.20	0.27	1.43	0.	0.27	0.55	1.09	0.55	0.41	5.19
		1973	0.88	1.00	1.11	0.77	0.66	0.44	0.66	1.00	0.11	0.88	1.00	1.11	9.62
		1974	0.77	0.43	0.68	0.59	0.	0.	0.34	0.59	0.	2.04	0.85	0.68	6.97
		1975	1.28	0.43	1.49	1.70	1.17	0.32	0.75	0.43	1.60	1.70	0.32	0.11	11.29
		1976	0.43	0.61	0.35	1.56	0.35	0.52	2.25	0.52	1.56	0.78	0.35	0.17	9.43
		1977	0.66	0.27	0.40	0.53	1.59	1.99	0.	1.20	0.	0.	0.80	1.59	9.03
		MEAN	0.78	0.68	0.59	1.21	0.92	1.41	0.63	0.76	0.55	0.77	0.91	1.02	10.25

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
15	7700														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.77	2.06	1.54	0.77	5.14
		1964	0.38	0.19	0.77	1.73	1.92	2.30	0.58	1.73	0.19	1.34	1.15	2.49	14.76
		1965	1.02	0.61	0.82	3.48	3.07	2.45	1.23	2.25	0.61	0.	1.64	1.43	18.61
		1966	0.53	0.35	0.18	0.53	0.35	1.77	0.35	0.18	2.12	0.	0.89	2.83	10.09
		1967	2.19	0.37	1.46	3.65	1.10	2.56	1.10	0.73	1.46	0.	1.10	0.	15.71
		1968	0.68	3.64	0.45	0.68	0.23	2.27	1.36	1.59	0.	1.36	1.82	1.36	15.46
		1969	2.67	1.60	0.89	1.60	1.25	3.56	0.18	0.36	0.	0.53	0.18	1.07	13.88
		1970	0.55	0.37	0.18	1.28	0.92	2.75	1.10	0.37	0.	0.37	2.02	2.94	12.85
		1971	0.65	1.30	0.65	2.39	2.82	1.74	0.65	1.74	0.22	1.30	3.04	1.95	18.46
		1972	0.	0.52	0.26	0.39	0.52	2.75	0.	0.52	1.05	2.09	1.05	0.79	9.95
		1973	1.12	1.27	1.41	0.98	0.84	0.56	0.84	1.27	0.14	1.12	1.27	1.41	12.23
		1974	1.15	0.64	1.02	0.89	0.	0.	0.51	0.89	0.	3.06	1.28	1.02	10.46
		1975	1.56	0.52	1.82	2.08	1.43	0.39	0.91	0.52	1.95	2.08	0.39	0.13	13.76
		1976	0.56	0.79	0.45	2.03	0.45	0.68	2.93	0.68	2.03	1.01	0.45	0.23	12.27
		1977	0.82	0.33	0.49	0.66	1.97	2.46	0.	1.48	0.	0.	0.98	1.97	11.16
		1978	1.03	1.62	2.06	2.35	0.15	0.	1.03	0.	4.41	0.29	1.18	1.03	15.13
		1979	1.56	0.28	0.	1.00	0.43	0.28	1.85	2.99	0.	0.28	0.71	0.43	9.81
		1980	2.47	0.65	1.95	0.13	4.69	0.	1.04	0.	0.52	0.65	0.91	0.13	13.15
		MEAN	1.10	0.87	0.86	1.50	1.28	1.54	0.91	1.00	0.90	0.96	1.18	1.21	13.33

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
16	6600														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.33	0.87	0.65	0.33	2.18
		1964	0.15	0.07	0.30	0.67	0.74	0.89	0.22	0.67	0.07	0.52	0.45	0.97	5.72
		1965	0.98	0.59	0.79	3.35	2.95	2.36	1.18	2.16	0.59	0.	1.57	1.38	17.91
		1966	0.45	0.30	0.15	0.45	0.30	1.49	0.30	0.15	1.78	0.	0.74	2.38	8.47
		1967	2.07	0.34	1.38	3.45	1.03	2.41	1.03	0.69	1.38	0.	1.03	0.	14.82
		1968	0.57	3.04	0.38	0.57	0.19	1.90	1.14	1.33	0.	1.14	1.52	1.14	12.91
		1969	2.93	1.75	0.98	1.75	1.37	3.90	0.20	0.39	0.	0.59	0.20	1.17	15.21
		1970	0.50	0.33	0.17	1.17	0.83	2.50	1.00	0.33	0.	0.33	1.83	2.67	11.67
		1971	0.56	1.13	0.56	2.06	2.44	1.50	0.56	1.50	0.19	1.13	2.63	1.69	15.95
		1972	0.	0.49	0.24	0.37	0.49	2.57	0.	0.49	0.98	1.96	0.98	0.73	9.31
		1973	1.16	1.31	1.45	1.02	0.87	0.58	0.87	1.31	0.15	1.16	1.31	1.45	12.64
		1974	1.10	0.61	0.98	0.85	0.	0.	0.49	0.85	0.	2.93	1.22	0.98	10.00
		1975	1.34	0.45	1.56	1.78	1.23	0.33	0.78	0.45	1.67	1.78	0.33	0.11	11.82
		1976	0.49	0.68	0.39	1.76	0.39	0.59	2.54	0.59	1.76	0.88	0.39	0.20	10.65
		1977	0.81	0.32	0.49	0.65	1.95	2.43	0.	1.46	0.	0.	0.97	1.95	11.03
		1978	1.07	1.67	2.13	2.44	0.15	0.	1.07	0.	4.57	0.30	1.22	1.07	15.68
		1979	1.61	0.29	0.	1.02	0.44	0.29	1.90	3.07	0.	0.29	0.73	0.44	10.08
		1980	2.37	0.62	1.87	0.12	4.49	0.	1.00	0.	0.50	0.62	0.87	0.12	12.60
		MEAN	1.07	0.83	0.82	1.39	1.17	1.41	0.84	0.91	0.83	0.81	1.04	1.05	12.17

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
17	6400	1963	0.	0.	0.	0.	0.	0.	0.	0.	0.52	1.38	1.03	0.52	3.44
		1964	0.25	0.12	0.50	1.12	1.24	1.49	0.37	1.12	0.12	0.87	0.75	1.62	9.58
		1965	0.71	0.43	0.57	2.43	2.14	1.72	0.86	1.57	0.43	0.	1.14	1.00	13.01
		1966	0.35	0.23	0.12	0.35	0.23	1.16	0.23	0.12	1.39	0.	0.58	1.85	6.59
		1967	1.45	0.24	0.97	2.41	0.72	1.69	0.72	0.48	0.97	0.	0.72	0.	10.38
		1968	0.51	2.74	0.34	0.51	0.17	1.71	1.03	1.20	0.	1.03	1.37	1.03	11.64
		1969	2.84	1.71	0.95	1.71	1.33	3.79	0.19	0.38	0.	0.57	0.19	1.14	14.79
		1970	0.33	0.22	0.11	0.78	0.55	1.66	0.67	0.22	0.	0.22	1.22	1.78	7.77
		1971	0.41	0.83	0.41	1.52	1.79	1.10	0.41	1.10	0.14	0.83	1.93	1.24	11.72
		1972	0.	0.59	0.30	0.45	0.59	3.12	0.	0.59	1.19	2.38	1.19	0.89	11.29
		1973	1.03	1.16	1.29	0.90	0.77	0.52	0.77	1.16	0.13	1.03	1.16	1.29	11.21
		1974	0.93	0.52	0.83	0.72	0.	0.	0.41	0.72	0.	2.48	1.03	0.83	8.48
		1975	1.27	0.42	1.48	1.69	1.16	0.32	0.74	0.42	1.59	1.69	0.32	0.11	11.21
		1976	0.47	0.66	0.38	1.71	0.38	0.57	2.46	0.57	1.71	0.85	0.38	0.19	10.33
		1977	0.81	0.32	0.48	0.64	1.93	2.42	0.	1.45	0.	0.	0.97	1.93	10.96
		1978	1.08	1.69	2.15	2.46	0.15	0.	1.08	0.	4.61	0.31	1.23	1.08	15.83
		1979	1.27	0.23	0.	0.81	0.35	0.23	1.50	2.42	0.	0.23	0.58	0.35	7.95
		1980	2.13	0.56	1.68	0.11	4.03	0.	0.90	0.	0.45	0.56	0.78	0.11	11.30
		MEAN	0.94	0.75	0.74	1.21	1.04	1.27	0.73	0.80	0.78	0.80	0.93	0.95	10.94

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
19	5700														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.47	1.26	0.95	0.47	3.16
		1964	0.25	0.13	0.51	1.14	1.27	1.52	0.38	1.14	0.13	0.89	0.76	1.65	9.77
		1965	0.77	0.46	0.62	2.63	2.32	1.86	0.93	1.70	0.46	0.	1.24	1.08	14.09
		1966	0.40	0.26	0.13	0.40	0.26	1.32	0.26	0.13	1.58	0.	0.66	2.11	7.51
		1967	1.46	0.24	0.97	2.43	0.73	1.70	0.73	0.49	0.97	0.	0.73	0.	10.47
		1968	0.37	1.96	0.25	0.37	0.12	1.23	0.74	0.86	0.	0.74	0.98	0.74	8.33
		1969	1.72	1.03	0.57	1.03	0.80	2.29	0.11	0.23	0.	0.34	0.11	0.69	8.93
		1970	0.33	0.22	0.11	0.77	0.55	1.64	0.66	0.22	0.	0.22	1.20	1.75	7.66
		1971	0.43	0.85	0.43	1.56	1.84	1.14	0.43	1.14	0.14	0.85	1.99	1.28	12.06
		1972	0.	0.44	0.22	0.33	0.44	2.33	0.	0.44	0.89	1.78	0.89	0.67	8.44
		1973	0.94	1.06	1.18	0.83	0.71	0.47	0.71	1.06	0.12	0.94	1.06	1.18	10.27
		1974	0.78	0.43	0.69	0.61	0.	0.	0.35	0.61	0.	2.08	0.87	0.69	7.12
		1975	1.28	0.43	1.49	1.70	1.17	0.32	0.74	0.43	1.59	1.70	0.32	0.11	11.27
		1976	0.46	0.64	0.37	1.65	0.37	0.55	2.39	0.55	1.65	0.83	0.37	0.18	10.00
		1977	0.84	0.34	0.51	0.67	2.02	2.53	0.	1.52	0.	0.	1.01	2.02	11.45
		1978	0.84	1.32	1.68	1.92	0.12	0.	0.84	0.	3.60	0.24	0.96	0.84	12.35
		1979	1.35	0.24	0.	0.86	0.37	0.24	1.59	2.57	0.	0.24	0.61	0.37	8.45
		1980	2.09	0.55	1.65	0.11	3.96	0.	0.88	0.	0.44	0.55	0.77	0.11	11.10
		MEAN	0.85	0.63	0.67	1.12	1.01	1.13	0.69	0.77	0.71	0.71	0.86	0.89	10.05

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
18	6200														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.55	1.46	1.09	0.55	3.64
		1964	0.27	0.14	0.55	1.23	1.37	1.65	0.41	1.23	0.14	0.96	0.82	1.78	10.56
		1965	0.76	0.45	0.61	2.57	2.27	1.82	0.91	1.67	0.45	0.	1.21	1.06	13.78
		1966	0.39	0.26	0.13	0.39	0.26	1.31	0.26	0.13	1.57	0.	0.65	2.09	7.44
		1967	1.54	0.26	1.03	2.56	0.77	1.79	0.77	0.51	1.03	0.	0.77	0.	11.02
		1968	0.53	2.85	0.36	0.53	0.18	1.78	1.07	1.25	0.	1.07	1.42	1.07	12.10
		1969	2.50	1.50	0.83	1.50	1.17	3.34	0.17	0.33	0.	0.50	0.17	1.00	13.02
		1970	0.34	0.23	0.11	0.79	0.57	1.70	0.68	0.23	0.	0.23	1.24	1.81	7.91
		1971	0.48	0.96	0.48	1.75	2.07	1.28	0.48	1.28	0.16	0.96	2.23	1.44	13.56
		1972	0.	0.50	0.25	0.38	0.50	2.63	0.	0.50	1.00	2.00	1.00	0.75	9.51
		1973	0.96	1.08	1.20	0.84	0.72	0.48	0.72	1.08	0.12	0.96	1.08	1.20	10.47
		1974	0.96	0.53	0.85	0.75	0.	0.	0.43	0.75	0.	2.56	1.07	0.85	8.76
		1975	1.28	0.43	1.49	1.71	1.17	0.32	0.75	0.43	1.60	1.71	0.32	0.11	11.31
		1976	0.48	0.67	0.39	1.73	0.39	0.58	2.50	0.58	1.73	0.87	0.39	0.19	10.50
		1977	0.85	0.34	0.51	0.68	2.04	2.55	0.	1.53	0.	0.	1.02	2.04	11.57
		1978	0.92	1.44	1.84	2.10	0.13	0.	0.92	0.	3.94	0.26	1.05	0.92	13.53
		1979	1.20	0.22	0.	0.76	0.33	0.22	1.41	2.28	0.	0.22	0.54	0.33	7.50
		1980	2.11	0.55	1.66	0.11	3.99	0.	0.89	0.	0.44	0.55	0.78	0.11	11.20
		MEAN	0.92	0.73	0.72	1.20	1.05	1.26	0.73	0.81	0.75	0.80	0.94	0.96	10.87

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
14	5500														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.52	1.40	1.05	0.52	3.49
		1964	0.26	0.13	0.52	1.16	1.29	1.55	0.39	1.16	0.13	0.90	0.78	1.68	9.95
		1965	0.78	0.47	0.62	2.64	2.33	1.86	0.93	1.71	0.47	0.	1.24	1.09	14.11
		1966	0.41	0.27	0.14	0.41	0.27	1.37	0.27	0.14	1.65	0.	0.69	2.20	7.83
		1967	1.45	0.24	0.96	2.41	0.72	1.69	0.72	0.48	0.96	0.	0.72	0.	10.37
		1968	0.46	2.45	0.31	0.46	0.15	1.53	0.92	1.07	0.	0.92	1.23	0.92	10.42
		1969	2.06	1.24	0.69	1.24	0.96	2.75	0.14	0.28	0.	0.41	0.14	0.83	10.73
		1970	0.43	0.28	0.14	0.99	0.71	2.13	0.85	0.28	0.	0.28	1.56	2.27	9.92
		1971	0.48	0.95	0.48	1.75	2.06	1.27	0.48	1.27	0.16	0.95	2.22	1.43	13.50
		1972	0.	0.43	0.22	0.32	0.43	2.27	0.	0.43	0.87	1.73	0.87	0.65	8.22
		1973	0.96	1.08	1.20	0.84	0.72	0.48	0.72	1.08	0.12	0.96	1.08	1.20	10.48
		1974	0.77	0.43	0.68	0.60	0.	0.	0.34	0.60	0.	2.05	0.86	0.68	7.02
		1975	1.16	0.39	1.36	1.55	1.07	0.29	0.68	0.39	1.46	1.55	0.29	0.10	10.29
		1976	0.45	0.63	0.36	1.63	0.36	0.54	2.35	0.54	1.63	0.81	0.36	0.18	9.86
		1977	0.59	0.24	0.35	0.47	1.42	1.77	0.	1.06	0.	0.	0.71	1.42	8.04
		1978	1.02	1.60	2.04	2.33	0.15	0.	1.02	0.	4.37	0.29	1.16	1.02	14.99
		1979	1.45	0.26	0.	0.92	0.39	0.26	1.71	2.76	0.	0.26	0.66	0.39	9.08
		1980	1.66	0.44	1.31	0.09	3.14	0.	0.70	0.	0.35	0.44	0.61	0.09	8.80
		MEAN	0.85	0.69	0.68	1.18	0.96	1.18	0.72	0.79	0.75	0.73	0.91	0.94	10.37

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
13	6400	1963	0.	0.	0.	0.	0.	0.	0.	0.	0.64	1.70	1.28	0.64	4.26
		1964	0.35	0.18	0.70	1.58	1.75	2.10	0.53	1.58	0.18	1.23	1.05	2.28	13.48
		1965	0.87	0.52	0.69	2.94	2.60	2.08	1.04	1.90	0.52	0.	1.38	1.21	15.75
		1966	0.49	0.33	0.16	0.49	0.33	1.63	0.33	0.16	1.96	0.	0.82	2.61	9.30
		1967	1.83	0.30	1.22	3.05	0.91	2.13	0.91	0.61	1.22	0.	0.91	0.	13.11
		1968	0.54	2.88	0.36	0.54	0.18	1.80	1.08	1.26	0.	1.08	1.44	1.08	12.24
		1969	2.72	1.63	0.91	1.63	1.27	3.63	0.18	0.36	0.	0.54	0.18	1.09	14.16
		1970	0.47	0.31	0.16	1.10	0.78	2.35	0.94	0.31	0.	0.31	1.73	2.51	10.98
		1971	0.60	1.20	0.60	2.20	2.60	1.60	0.60	1.60	0.20	1.20	2.80	1.80	16.98
		1972	0.	0.55	0.27	0.41	0.55	2.87	0.	0.55	1.09	2.18	1.09	0.82	10.37
		1973	1.09	1.22	1.36	0.95	0.81	0.54	0.81	1.22	0.14	1.09	1.22	1.36	11.80
		1974	1.08	0.60	0.96	0.84	0.	0.	0.48	0.84	0.	2.88	1.20	0.96	9.83
		1975	1.30	0.43	1.51	1.73	1.19	0.32	0.76	0.43	1.62	1.73	0.32	0.11	11.44
		1976	0.52	0.72	0.41	1.86	0.41	0.62	2.69	0.62	1.86	0.93	0.41	0.21	11.26
		1977	0.74	0.30	0.45	0.60	1.79	2.23	0.	1.34	0.	0.	0.89	1.79	10.13
		1978	1.12	1.76	2.24	2.56	0.16	0.	1.12	0.	4.81	0.32	1.28	1.12	16.51
		1979	1.40	0.26	0.	0.89	0.38	0.26	1.66	2.68	0.	0.26	0.64	0.38	8.80
		1980	2.24	0.59	1.77	0.12	4.24	0.	0.94	0.	0.47	0.59	0.82	0.12	11.90
		MEAN	1.01	0.80	0.80	1.37	1.16	1.42	0.82	0.90	0.85	0.88	1.07	1.11	12.19

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
2	5325														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.33	0.88	0.66	0.33	2.19
		1964	0.18	0.09	0.36	0.81	0.91	1.09	0.27	0.81	0.09	0.63	0.54	1.18	6.97
		1965	0.55	0.33	0.44	1.87	1.65	1.32	0.66	1.21	0.33	0.	0.88	0.77	10.01
		1966	0.32	0.21	0.11	0.32	0.21	1.06	0.21	0.11	1.27	0.	0.53	1.69	6.02
		1967	1.11	0.19	0.74	1.85	0.56	1.30	0.56	0.37	0.74	0.	0.56	0.	7.97
		1968	0.33	1.76	0.22	0.33	0.11	1.10	0.66	0.77	0.	0.66	0.88	0.66	7.46
		1969	1.37	0.82	0.46	0.82	0.64	1.82	0.09	0.18	0.	0.27	0.09	0.55	7.10
		1970	0.27	0.18	0.09	0.63	0.45	1.35	0.54	0.18	0.	0.18	0.99	1.44	6.29
		1971	0.36	0.72	0.36	1.31	1.55	0.95	0.36	0.95	0.12	0.72	1.67	1.07	10.14
		1972	0.	0.29	0.14	0.22	0.29	1.51	0.	0.29	0.57	1.15	0.57	0.43	5.45
		1973	0.72	0.81	0.90	0.63	0.54	0.36	0.54	0.81	0.09	0.72	0.81	0.90	7.80
		1974	0.59	0.33	0.53	0.46	0.	0.	0.26	0.46	0.	1.58	0.66	0.53	5.41
		1975	0.92	0.31	1.08	1.23	0.85	0.23	0.54	0.31	1.16	1.23	0.23	0.08	8.17
		1976	0.44	0.61	0.35	1.58	0.35	0.53	2.28	0.53	1.58	0.79	0.35	0.18	9.55
		1977	0.70	0.28	0.42	0.56	1.69	2.11	0.	1.27	0.	0.	0.84	1.69	9.57
		1978	0.82	1.29	1.65	1.88	0.12	0.	0.82	0.	3.53	0.24	0.94	0.82	12.12
		1979	1.14	0.21	0.	0.73	0.31	0.21	1.35	2.19	0.	0.21	0.52	0.31	7.18
		1980	1.38	0.36	1.09	0.07	2.62	0.	0.58	0.	0.29	0.36	0.51	0.07	7.35
		MEAN	0.66	0.52	0.52	0.90	0.75	0.88	0.57	0.61	0.59	0.53	0.68	0.70	7.92

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
1	4900														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.33	0.88	0.66	0.33	2.21
		1964	0.18	0.09	0.36	0.80	0.89	1.07	0.27	0.80	0.09	0.62	0.54	1.16	6.87
		1965	0.62	0.37	0.50	2.12	1.87	1.49	0.75	1.37	0.37	0.	1.00	0.87	11.33
		1966	0.31	0.21	0.10	0.31	0.21	1.05	0.21	0.10	1.26	0.	0.52	1.68	5.98
		1967	1.05	0.18	0.70	1.76	0.53	1.23	0.53	0.35	0.70	0.	0.53	0.	7.55
		1968	0.34	1.83	0.23	0.34	0.11	1.14	0.69	0.80	0.	0.69	0.91	0.69	7.77
		1969	1.34	0.81	0.45	0.81	0.63	1.79	0.09	0.18	0.	0.27	0.09	0.54	6.99
		1970	0.28	0.19	0.09	0.66	0.47	1.40	0.56	0.19	0.	0.19	1.03	1.50	6.55
		1971	0.30	0.60	0.30	1.11	1.31	0.81	0.30	0.81	0.10	0.60	1.41	0.91	8.56
		1972	0.	0.31	0.16	0.23	0.31	1.64	0.	0.31	0.62	1.25	0.62	0.47	5.92
		1973	0.88	0.99	1.10	0.77	0.66	0.44	0.66	0.99	0.11	0.88	0.99	1.10	9.54
		1974	0.50	0.28	0.45	0.39	0.	0.	0.22	0.39	0.	1.34	0.56	0.45	4.58
		1975	0.97	0.32	1.13	1.29	0.89	0.24	0.57	0.32	1.21	1.29	0.24	0.08	8.57
		1976	0.42	0.59	0.34	1.52	0.34	0.51	2.19	0.51	1.52	0.76	0.34	0.17	9.20
		1977	0.62	0.25	0.37	0.50	1.49	1.86	0.	1.11	0.	0.	0.74	1.49	8.42
		1978	0.84	1.32	1.68	1.92	0.12	0.	0.84	0.	3.60	0.24	0.96	0.84	12.37
		1979	1.05	0.19	0.	0.67	0.29	0.19	1.24	2.01	0.	0.19	0.48	0.29	6.60
		1980	1.06	0.28	0.84	0.06	2.01	0.	0.45	0.	0.22	0.28	0.39	0.06	5.65
		MEAN	0.63	0.52	0.52	0.90	0.71	0.87	0.56	0.60	0.60	0.53	0.67	0.70	7.81

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
20	5600														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.50	1.33	1.00	0.50	3.32
		1964	0.23	0.12	0.47	1.05	1.16	1.40	0.35	1.05	0.12	0.81	0.70	1.51	8.96
		1965	0.71	0.43	0.57	2.42	2.13	1.71	0.85	1.56	0.43	0.	1.14	1.00	12.94
		1966	0.40	0.27	0.13	0.40	0.27	1.34	0.27	0.13	1.61	0.	0.67	2.15	7.65
		1967	1.43	0.24	0.95	2.38	0.71	1.66	0.71	0.48	0.95	0.	0.71	0.	10.22
		1968	0.37	1.97	0.25	0.37	0.12	1.23	0.74	0.86	0.	0.74	0.98	0.74	8.37
		1969	2.80	1.68	0.93	1.68	1.31	3.73	0.19	0.37	0.	0.56	0.19	1.12	14.55
		1970	0.33	0.22	0.11	0.77	0.55	1.66	0.66	0.22	0.	0.22	1.21	1.77	7.73
		1971	0.47	0.94	0.47	1.73	2.04	1.26	0.47	1.26	0.16	0.94	2.20	1.41	13.36
		1972	0.	0.41	0.21	0.31	0.41	2.18	0.	0.41	0.83	1.66	0.83	0.62	7.88
		1973	1.03	1.16	1.29	0.90	0.77	0.51	0.77	1.16	0.13	1.03	1.16	1.29	11.19
		1974	0.83	0.46	0.74	0.65	0.	0.	0.37	0.65	0.	2.21	0.92	0.74	7.56
		1975	1.10	0.37	1.29	1.47	1.01	0.28	0.64	0.37	1.38	1.47	0.28	0.09	9.76
		1976	0.45	0.63	0.36	1.61	0.36	0.54	2.33	0.54	1.61	0.81	0.36	0.18	9.77
		1977	0.71	0.28	0.43	0.57	1.70	2.13	0.	1.28	0.	0.	0.85	1.70	9.65
		MEAN	0.78	0.65	0.59	1.16	0.90	1.38	0.60	0.74	0.56	0.78	0.88	0.98	10.02

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
21	5200	1963	0.	0.	0.	0.	0.	0.	0.	0.	0.34	0.90	0.68	0.34	2.26
		1964	0.19	0.10	0.38	0.86	0.95	1.14	0.29	0.86	0.10	0.67	0.57	1.24	7.33
		1965	0.76	0.46	0.61	2.59	2.29	1.83	0.91	1.68	0.46	0.	1.22	1.07	13.87
		1966	0.33	0.22	0.11	0.33	0.22	1.11	0.22	0.11	1.33	0.	0.55	1.77	6.32
		1967	1.10	0.18	0.73	1.83	0.55	1.28	0.55	0.37	0.73	0.	0.55	0.	7.85
		1968	0.38	2.00	0.25	0.38	0.13	1.25	0.75	0.88	0.	0.75	1.00	0.75	8.50
		1969	2.65	1.59	0.88	1.59	1.24	3.54	0.18	0.35	0.	0.53	0.18	1.06	13.79
		1970	0.36	0.24	0.12	0.84	0.60	1.80	0.72	0.24	0.	0.24	1.32	1.92	8.40
		1971	0.38	0.76	0.38	1.39	1.64	1.01	0.38	1.01	0.13	0.76	1.77	1.14	10.74
		1972	0.	0.35	0.18	0.26	0.35	1.85	0.	0.35	0.70	1.41	0.70	0.53	6.68
		1973	0.87	0.97	1.08	0.76	0.65	0.43	0.65	0.97	0.11	0.87	0.97	1.08	9.41
		1974	0.65	0.36	0.57	0.50	0.	0.	0.29	0.50	0.	1.72	0.72	0.57	5.89
		1975	1.18	0.39	1.37	1.57	1.08	0.29	0.69	0.39	1.47	1.57	0.29	0.10	10.41
		1976	0.43	0.60	0.34	1.54	0.34	0.51	2.23	0.51	1.54	0.77	0.34	0.17	9.33
		1977	0.78	0.31	0.47	0.63	1.88	2.34	0.	1.41	0.	0.	0.94	1.88	10.63
		MEAN	0.72	0.61	0.54	1.08	0.85	1.32	0.56	0.69	0.50	0.69	0.79	0.91	9.27

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
22	5000														
		1963	0.	0.	0.	0.	0.	0.	0.	0.	0.27	0.71	0.53	0.27	1.77
		1964	0.17	0.08	0.34	0.76	0.84	1.01	0.25	0.76	0.08	0.59	0.51	1.10	6.49
		1965	0.61	0.37	0.49	2.08	1.83	1.47	0.73	1.35	0.37	0.	0.98	0.86	11.13
		1966	0.29	0.20	0.10	0.29	0.20	0.98	0.20	0.10	1.17	0.	0.49	1.56	5.56
		1967	1.07	0.18	0.71	1.79	0.54	1.25	0.54	0.36	0.71	0.	0.54	0.	7.68
		1968	0.28	1.47	0.18	0.28	0.09	0.92	0.55	0.64	0.	0.55	0.73	0.55	6.24
		1969	1.78	1.07	0.59	1.07	0.83	2.37	0.12	0.24	0.	0.36	0.12	0.71	9.26
		1970	0.29	0.20	0.10	0.69	0.49	1.47	0.59	0.20	0.	0.20	1.08	1.57	6.88
		1971	0.35	0.70	0.35	1.28	1.52	0.93	0.35	0.93	0.12	0.70	1.63	1.05	9.91
		1972	0.	0.35	0.17	0.26	0.35	1.82	0.	0.35	0.69	1.38	0.69	0.52	6.57
		1973	0.80	0.90	1.00	0.70	0.60	0.40	0.60	0.90	0.10	0.80	0.90	1.00	8.74
		1974	0.62	0.34	0.55	0.48	0.	0.	0.28	0.48	0.	1.65	0.69	0.55	5.65
		1975	0.97	0.32	1.13	1.30	0.89	0.24	0.57	0.32	1.21	1.30	0.24	0.08	8.58
		1976	0.43	0.60	0.34	1.53	0.34	0.51	2.22	0.51	1.53	0.77	0.34	0.17	9.29
		1977	0.66	0.27	0.40	0.53	1.60	1.99	0.	1.20	0.	0.	0.80	1.60	9.04
		MEAN	0.60	0.51	0.47	0.94	0.73	1.11	0.50	0.60	0.45	0.61	0.69	0.78	8.00

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
23	4870														
		1967	1.17	0.20	0.78	1.95	0.59	1.37	0.59	0.39	0.78	0.	0.59	0.	8.39
		1968	0.38	2.01	0.25	0.38	0.13	1.26	0.76	0.88	0.	0.76	1.01	0.76	8.56
		1969	2.03	1.22	0.68	1.22	0.95	2.71	0.14	0.27	0.	0.41	0.14	0.81	10.58
		1970	0.25	0.17	0.08	0.58	0.42	1.25	0.50	0.17	0.	0.17	0.91	1.33	5.81
		1971	0.40	0.79	0.40	1.46	1.72	1.06	0.40	1.06	0.13	0.79	1.85	1.19	11.25
		1972	0.	0.32	0.16	0.24	0.32	1.70	0.	0.32	0.65	1.30	0.65	0.49	6.17
		1973	0.74	0.83	0.92	0.65	0.55	0.37	0.55	0.83	0.09	0.74	0.83	0.92	8.04
		1974	0.53	0.30	0.47	0.41	0.	0.	0.24	0.41	0.	1.42	0.59	0.47	4.86
		1975	0.97	0.32	1.14	1.30	0.89	0.24	0.57	0.32	1.22	1.30	0.24	0.08	8.60
		1976	0.46	0.64	0.36	1.64	0.36	0.55	2.37	0.55	1.64	0.82	0.36	0.18	9.92
		1977	0.71	0.28	0.43	0.57	1.70	2.13	0.	1.28	0.	0.	0.85	1.70	9.66
		1978	0.81	1.27	1.62	1.85	0.12	0.	0.81	0.	3.47	0.23	0.92	0.81	11.90
		1979	1.14	0.21	0.	0.73	0.31	0.21	1.35	2.18	0.	0.21	0.52	0.31	7.15
		1980	1.42	0.37	1.12	0.07	2.69	0.	0.60	0.	0.30	0.37	0.52	0.07	7.55
		MEAN	0.79	0.64	0.60	0.93	0.77	0.92	0.63	0.62	0.59	0.61	0.71	0.65	8.46

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
24	4650														
		1967	0.41	0.14	1.08	1.89	0.27	0.81	0.27	0.14	1.08	0.	1.22	0.27	7.58
		1968	0.20	1.33	0.20	0.31	0.20	0.92	0.82	0.72	0.	0.51	0.61	0.31	6.15
		1969	2.08	1.04	0.30	0.89	0.74	2.22	0.30	0.59	0.	0.74	0.30	1.04	10.23
		1970	0.39	0.29	0.10	0.20	0.39	1.08	0.78	0.29	0.	0.10	0.59	1.86	6.07
		1971	0.33	0.66	0.16	1.48	1.81	0.66	0.82	0.33	0.	0.82	1.48	0.99	9.54
		1972	0.	0.31	0.16	0.	0.47	3.11	0.	0.47	1.56	2.33	0.78	0.62	9.80
		1973	1.13	0.82	0.92	0.62	0.72	0.31	0.	0.62	0.	0.72	0.82	0.92	7.59
		1974	0.65	0.37	0.56	0.	0.	0.	0.09	0.28	0.	1.21	0.74	0.56	4.45
		1975	0.73	0.31	0.62	0.52	0.62	0.10	0.	0.94	1.56	1.14	0.21	0.31	7.07
		1976	0.24	0.96	0.12	1.20	0.36	0.48	2.04	0.60	1.92	1.08	0.36	0.	9.37
		1977	0.80	0.13	0.27	0.13	2.00	1.60	0.27	1.07	0.13	0.	0.53	1.20	8.13
		1978	0.46	1.14	2.85	2.05	0.	0.	0.34	0.68	3.08	0.	0.57	0.46	11.63
		1979	0.44	0.27	0.88	0.35	0.18	0.09	1.24	2.56	0.18	0.27	0.18	0.35	6.98
		1980	0.75	0.66	0.94	0.09	2.35	0.09	0.47	0.	0.28	0.09	0.38	0.09	6.20
		MEAN	0.67	0.65	0.70	0.76	0.78	0.89	0.58	0.71	0.74	0.69	0.68	0.69	8.52

TABLE B-3-1; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; EASTGATE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
25	6100	1967	1.20	0.20	0.80	1.99	0.60	1.40	0.60	0.40	0.80	0.	0.60	0.	8.57
		1968	0.36	1.91	0.24	0.36	0.12	1.19	0.72	0.83	0.	0.72	0.95	0.72	8.11
		1969	2.00	1.20	0.67	1.20	0.93	2.66	0.13	0.27	0.	0.40	0.13	0.80	10.38
		1970	0.29	0.19	0.10	0.67	0.48	1.44	0.58	0.19	0.	0.19	1.05	1.53	6.71
		1971	0.39	0.78	0.39	1.43	1.69	1.04	0.39	1.04	0.13	0.78	1.82	1.17	11.07
		1972	0.	0.42	0.21	0.32	0.42	2.21	0.	0.42	0.84	1.69	0.84	0.63	8.01
		1973	0.80	0.90	1.00	0.70	0.60	0.40	0.60	0.90	0.10	0.80	0.90	1.00	8.66
		1974	0.62	0.35	0.55	0.48	0.	0.	0.28	0.48	0.	1.66	0.69	0.55	5.68
		1975	1.16	0.39	1.36	1.55	1.07	0.29	0.68	0.39	1.46	1.55	0.29	0.10	10.29
		1976	0.46	0.64	0.37	1.64	0.37	0.55	2.37	0.55	1.64	0.82	0.37	0.18	9.95
		1977	0.78	0.31	0.47	0.62	1.86	2.33	0.	1.40	0.	0.	0.93	1.86	10.55
		1978	0.73	1.14	1.46	1.67	0.10	0.	0.73	0.	3.12	0.21	0.83	0.73	10.72
		1979	1.34	0.24	0.	0.85	0.36	0.24	1.58	2.55	0.	0.24	0.61	0.36	8.38
		1980	1.75	0.46	1.38	0.09	3.31	0.	0.74	0.	0.37	0.46	0.64	0.09	9.30
		MEAN	0.89	0.70	0.69	1.02	0.91	1.05	0.71	0.72	0.66	0.73	0.81	0.74	9.64

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
1	4620														
		1964	0.63	0.	0.32	0.	2.85	1.90	0.	0.	0.	0.	0.63	2.53	8.87
		1965	1.03	0.	0.29	0.73	0.29	0.44	0.88	2.64	0.44	0.	4.10	0.44	11.28
		1966	0.57	0.	0.	0.11	0.23	0.11	0.	0.23	0.34	0.	0.45	1.70	3.74
		1967	0.92	0.	1.66	0.55	0.	0.	0.55	2.40	1.11	0.	0.37	0.55	8.13
		1968	0.09	0.89	0.18	0.	0.44	0.18	0.18	0.27	0.	0.	0.36	0.71	3.29
		1969	4.00	1.33	0.15	0.	0.	2.22	0.	0.15	0.	0.59	0.	0.44	8.88
		1970	0.76	0.19	0.38	0.	0.76	0.95	0.57	1.14	0.19	0.	1.52	0.38	6.82
		1971	0.16	0.	0.47	0.16	3.17	0.16	2.37	0.32	0.	0.16	0.32	1.27	8.55
		1972	0.	0.	0.	0.12	0.58	0.46	0.12	0.12	0.81	1.96	0.35	0.46	4.96
		1973	0.95	1.90	0.36	0.12	0.24	0.36	0.48	0.24	0.	0.48	1.55	0.71	7.37
		1974	1.01	0.	0.76	0.	0.	0.	0.76	0.	0.	0.63	0.76	0.38	4.29
		1975	0.31	1.07	2.59	0.	0.46	0.92	0.15	1.53	0.92	0.15	0.	0.	8.09
		1976	0.62	0.83	0.	0.21	0.41	0.21	0.62	1.24	1.45	0.21	0.	0.	5.80
		1977	0.48	0.71	0.12	0.	1.66	0.83	0.	0.36	0.	0.	0.48	2.61	7.25
		1978	0.60	1.07	1.67	0.36	0.	0.	0.	0.48	0.83	0.36	0.60	0.48	6.43
		1979	0.86	0.58	0.43	0.29	0.	0.	0.72	1.01	0.	0.29	0.14	1.44	5.76
		1980	2.36	1.14	0.18	0.35	0.79	0.09	0.09	0.	0.44	0.18	0.53	0.61	6.74
		MEAN	0.90	0.57	0.56	0.18	0.70	0.52	0.44	0.72	0.39	0.29	0.72	0.87	6.84

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
2	4760														
		1964	0.44	0.	0.59	0.29	2.06	1.47	0.	0.15	0.	0.44	0.88	2.94	9.27
		1965	1.36	0.17	0.43	0.85	0.34	0.85	1.02	1.70	0.43	0.	2.55	0.43	10.13
		1966	0.22	0.14	0.07	0.07	0.29	0.	0.	0.29	0.36	0.	0.43	1.74	3.62
		1967	2.10	0.	0.78	0.22	0.	0.	0.44	1.55	0.89	0.	0.78	0.33	7.09
		1968	0.17	0.52	0.17	0.06	0.29	0.12	0.29	0.	0.06	0.17	0.52	0.70	3.08
		1969	3.09	0.26	0.17	0.	0.09	1.63	0.17	0.09	0.	0.17	0.17	2.15	7.99
		1970	0.34	0.	0.	0.	0.67	0.78	0.56	0.67	0.	0.22	1.45	0.67	5.37
		1971	0.36	0.27	0.90	0.27	2.88	0.18	0.81	0.45	0.	0.27	0.36	0.90	7.66
		1972	0.13	0.07	0.	0.20	0.53	0.60	0.13	0.73	0.80	1.66	0.47	0.67	5.99
		1973	1.13	1.53	0.32	0.08	0.16	0.24	0.24	0.32	0.	0.64	1.29	0.80	6.76
		1974	0.71	0.14	0.50	0.07	0.	0.	0.71	0.07	0.	0.71	0.43	0.57	3.93
		1975	0.49	1.26	1.19	0.91	0.28	0.35	0.07	1.26	0.49	0.56	0.14	0.07	7.07
		1976	0.26	1.16	0.51	0.39	0.26	0.39	0.77	0.90	1.29	0.51	0.13	0.	6.56
		1977	0.35	0.63	0.28	0.	1.11	1.18	0.	0.21	0.	0.07	0.90	1.60	6.33
		1978	0.13	0.39	1.70	0.26	0.	0.	0.13	0.26	1.30	0.26	0.65	0.39	5.48
		1979	0.63	0.13	0.25	0.38	0.	0.25	0.76	1.01	0.13	0.38	0.25	1.39	5.57
		1980	1.68	0.90	0.18	0.30	0.60	0.12	0.18	0.06	0.42	0.18	0.42	0.54	5.58
		MEAN	0.81	0.45	0.48	0.25	0.57	0.48	0.38	0.58	0.37	0.37	0.70	0.93	6.35

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
3	4390														
		1964	0.57	0.	0.29	0.	2.57	1.71	0.	0.	0.	0.	0.57	2.29	8.00
		1965	0.94	0.	0.27	0.67	0.27	0.40	0.80	2.41	0.40	0.	3.75	0.40	10.30
		1966	0.60	0.	0.	0.12	0.24	0.12	0.	0.24	0.36	0.	0.48	1.81	3.99
		1967	0.90	0.	1.62	0.54	0.	0.	0.54	2.33	1.08	0.	0.36	0.54	7.90
		1968	0.08	0.83	0.17	0.	0.41	0.17	0.17	0.25	0.	0.	0.33	0.66	3.07
		1969	4.13	1.38	0.15	0.	0.	2.29	0.	0.15	0.	0.61	0.	0.46	9.17
		1970	0.68	0.17	0.34	0.	0.68	0.85	0.51	1.01	0.17	0.	1.35	0.34	6.09
		1971	0.16	0.	0.48	0.16	3.23	0.16	2.42	0.32	0.	0.16	0.32	1.29	8.72
		1972	0.	0.	0.	0.11	0.57	0.46	0.11	0.11	0.80	1.95	0.34	0.46	4.92
		1973	0.89	1.77	0.33	0.11	0.22	0.33	0.44	0.22	0.	0.44	1.44	0.66	6.86
		1974	0.85	0.	0.64	0.	0.	0.	0.64	0.	0.	0.53	0.64	0.32	3.60
		1975	0.24	0.83	2.02	0.	0.36	0.71	0.12	1.19	0.71	0.12	0.	0.	6.30
		1976	0.63	0.84	0.	0.21	0.42	0.21	0.63	1.26	1.47	0.21	0.	0.	5.87
		1977	0.42	0.64	0.11	0.	1.49	0.74	0.	0.32	0.	0.	0.42	2.34	6.48
		1978	0.50	0.91	1.41	0.30	0.	0.	0.	0.40	0.71	0.30	0.50	0.40	5.44
		1979	0.73	0.49	0.37	0.24	0.	0.	0.61	0.86	0.	0.24	0.12	1.22	4.89
		1980	2.28	1.10	0.17	0.34	0.76	0.08	0.08	0.	0.42	0.17	0.51	0.59	6.51
		MEAN	0.86	0.52	0.49	0.17	0.66	0.49	0.41	0.65	0.36	0.28	0.66	0.82	6.36

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
4	5070														
		1964	0.56	0.	0.74	0.37	2.61	1.86	0.	0.19	0.	0.56	1.12	3.72	11.73
		1965	1.71	0.21	0.53	1.07	0.43	1.07	1.28	2.14	0.53	0.	3.21	0.53	12.72
		1966	0.25	0.16	0.08	0.08	0.33	0.	0.	0.33	0.41	0.	0.49	1.97	4.10
		1967	2.37	0.	0.87	0.25	0.	0.	0.50	1.75	1.00	0.	0.87	0.37	7.99
		1968	0.27	0.81	0.27	0.09	0.45	0.18	0.45	0.	0.09	0.27	0.81	1.08	4.79
		1969	4.66	0.39	0.26	0.	0.13	2.46	0.26	0.13	0.	0.26	0.26	3.24	12.04
		1970	0.56	0.	0.	0.	1.13	1.31	0.94	1.13	0.	0.38	2.44	1.13	9.00
		1971	0.42	0.31	1.04	0.31	3.32	0.21	0.93	0.52	0.	0.31	0.42	1.04	8.82
		1972	0.16	0.08	0.	0.24	0.63	0.71	0.16	0.87	0.95	1.98	0.55	0.79	7.13
		1973	1.21	1.64	0.35	0.09	0.17	0.26	0.26	0.35	0.	0.69	1.38	0.86	7.26
		1974	0.95	0.19	0.66	0.09	0.	0.	0.95	0.09	0.	0.95	0.57	0.76	5.21
		1975	0.63	1.61	1.52	1.16	0.36	0.45	0.09	1.61	0.63	0.72	0.18	0.09	9.03
		1976	0.32	1.45	0.64	0.48	0.32	0.48	0.97	1.13	1.61	0.64	0.16	0.	8.22
		1977	0.49	0.89	0.39	0.	1.58	1.68	0.	0.30	0.	0.10	1.28	2.27	8.98
		1978	0.14	0.41	1.76	0.27	0.	0.	0.14	0.27	1.36	0.27	0.68	0.41	5.70
		1979	0.71	0.14	0.28	0.43	0.	0.28	0.85	1.14	0.14	0.43	0.28	1.56	6.25
		1980	1.80	0.96	0.19	0.32	0.64	0.13	0.19	0.06	0.45	0.19	0.45	0.58	5.97
		MEAN	1.01	0.55	0.56	0.30	0.71	0.64	0.46	0.71	0.41	0.44	0.88	1.18	7.85

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
5	5700														
		1964	0.50	0.	0.67	0.34	2.35	1.68	0.	0.17	0.	0.50	1.01	3.36	10.58
		1965	1.71	0.21	0.54	1.07	0.43	1.07	1.28	2.14	0.54	0.	3.21	0.54	12.74
		1966	0.26	0.17	0.09	0.09	0.35	0.	0.	0.35	0.43	0.	0.52	2.07	4.32
		1967	2.16	0.	0.79	0.23	0.	0.	0.45	1.59	0.91	0.	0.79	0.34	7.26
		1968	0.27	0.81	0.27	0.09	0.45	0.16	0.45	0.	0.09	0.27	0.81	1.08	4.75
		1969	3.89	0.32	0.22	0.	0.11	2.06	0.22	0.11	0.	0.22	0.22	2.70	10.06
		1970	0.56	0.	0.	0.	1.12	1.31	0.94	1.12	0.	0.37	2.43	1.12	8.99
		1971	0.44	0.33	1.10	0.33	3.52	0.22	0.99	0.55	0.	0.33	0.44	1.10	9.35
		1972	0.13	0.06	0.	0.19	0.52	0.58	0.13	0.71	0.78	1.62	0.45	0.65	5.83
		1973	1.48	2.01	0.42	0.11	0.21	0.32	0.32	0.42	0.	0.85	1.69	1.06	8.88
		1974	1.18	0.24	0.82	0.12	0.	0.	1.18	0.12	0.	1.18	0.71	0.94	6.47
		1975	0.61	1.57	1.48	1.13	0.35	0.44	0.09	1.57	0.61	0.70	0.17	0.09	8.81
		1976	0.28	1.27	0.56	0.42	0.28	0.42	0.85	0.99	1.41	0.56	0.14	0.	7.20
		1977	0.49	0.89	0.39	0.	1.58	1.67	0.	0.30	0.	0.10	1.28	2.26	8.96
		1978	0.12	0.36	1.54	0.24	0.	0.	0.12	0.24	1.18	0.24	0.59	0.36	4.97
		1979	0.68	0.14	0.27	0.41	0.	0.27	0.81	1.08	0.14	0.41	0.27	1.49	5.96
		1980	2.05	1.10	0.22	0.37	0.73	0.15	0.22	0.07	0.51	0.22	0.51	0.66	6.82
		MEAN	0.99	0.56	0.56	0.30	0.71	0.61	0.47	0.68	0.39	0.44	0.89	1.17	7.76

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
6	5330	1964	0.38	0.	0.51	0.26	1.79	1.28	0.	0.13	0.	0.38	0.77	2.56	8.07
		1965	1.36	0.17	0.42	0.85	0.34	0.85	1.02	1.70	0.42	0.	2.55	0.42	10.11
		1966	0.25	0.16	0.08	0.08	0.33	0.	0.	0.33	0.41	0.	0.49	1.96	4.09
		1967	2.64	0.	0.97	0.28	0.	0.	0.55	1.94	1.11	0.	0.97	0.42	8.88
		1968	0.26	0.79	0.26	0.09	0.44	0.18	0.44	0.	0.09	0.26	0.79	1.05	4.65
		1969	4.70	0.39	0.26	0.	0.13	2.48	0.26	0.13	0.	0.26	0.26	3.26	12.14
		1970	0.69	0.	0.	0.	1.37	1.60	1.14	1.37	0.	0.46	2.97	1.37	10.96
		1971	0.48	0.36	1.20	0.36	3.82	0.24	1.08	0.60	0.	0.36	0.48	1.20	10.16
		1972	0.15	0.07	0.	0.22	0.58	0.66	0.15	0.80	0.88	1.82	0.51	0.73	6.57
		1973	1.40	1.91	0.40	0.10	0.20	0.30	0.30	0.40	0.	0.80	1.61	1.00	8.43
		1974	1.05	0.21	0.73	0.10	0.	0.	1.05	0.10	0.	1.05	0.63	0.84	5.76
		1975	0.57	1.46	1.38	1.05	0.32	0.41	0.08	1.46	0.57	0.65	0.16	0.08	8.19
		1976	0.26	1.19	0.53	0.40	0.26	0.40	0.79	0.93	1.32	0.53	0.13	0.	6.75
		1977	0.56	1.00	0.45	0.	1.79	1.90	0.	0.33	0.	0.11	1.45	2.57	10.16
		1978	0.09	0.27	1.16	0.18	0.	0.	0.09	0.18	0.89	0.18	0.45	0.27	3.74
		1979	0.75	0.15	0.30	0.45	0.	0.30	0.90	1.20	0.15	0.45	0.30	1.66	6.62
		1980	2.32	1.24	0.25	0.41	0.83	0.17	0.25	0.08	0.58	0.25	0.58	0.75	7.71
		MEAN	1.04	0.56	0.53	0.28	0.72	0.63	0.48	0.69	0.38	0.44	0.88	1.19	7.82

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
7	5680														
		1964	0.53	0.	0.71	0.36	2.49	1.78	0.	0.18	0.	0.53	1.07	3.56	11.21
		1965	1.74	0.22	0.54	1.09	0.43	1.09	1.30	2.17	0.54	0.	3.26	0.54	12.92
		1966	0.26	0.17	0.09	0.09	0.35	0.	0.	0.35	0.44	0.	0.52	2.09	4.36
		1967	2.54	0.	0.94	0.27	0.	0.	0.54	1.87	1.07	0.	0.94	0.40	8.57
		1968	0.32	0.97	0.32	0.11	0.54	0.21	0.54	0.	0.11	0.32	0.97	1.29	5.69
		1969	4.76	0.40	0.26	0.	0.13	2.51	0.26	0.13	0.	0.26	0.26	3.31	12.30
		1970	0.65	0.	0.	0.	1.30	1.51	1.08	1.30	0.	0.43	2.81	1.30	10.38
		1971	0.45	0.33	1.11	0.33	3.56	0.22	1.00	0.56	0.	0.33	0.45	1.11	9.46
		1972	0.16	0.08	0.	0.23	0.63	0.70	0.16	0.86	0.94	1.96	0.55	0.78	7.05
		1973	1.44	1.96	0.41	0.10	0.21	0.31	0.31	0.41	0.	0.83	1.65	1.03	8.67
		1974	1.28	0.26	0.90	0.13	0.	0.	1.28	0.13	0.	1.28	0.77	1.03	7.06
		1975	0.66	1.70	1.61	1.23	0.38	0.47	0.09	1.70	0.66	0.76	0.19	0.09	9.55
		1976	0.29	1.29	0.57	0.43	0.29	0.43	0.86	1.00	1.44	0.57	0.14	0.	7.32
		1977	0.52	0.94	0.42	0.	1.67	1.78	0.	0.31	0.	0.10	1.36	2.40	9.51
		MEAN	1.11	0.59	0.56	0.31	0.85	0.78	0.53	0.78	0.37	0.52	1.05	1.34	8.78

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
8	5550														
		1964	0.56	0.	0.75	0.38	2.63	1.88	0.	0.19	0.	0.56	1.13	3.76	11.85
		1965	2.22	0.28	0.69	1.39	0.56	1.39	1.67	2.78	0.69	0.	4.16	0.69	16.52
		1966	0.41	0.27	0.14	0.14	0.55	0.	0.	0.55	0.68	0.	0.82	3.27	6.82
		1967	3.73	0.	1.37	0.39	0.	0.	0.78	2.75	1.57	0.	1.37	0.59	12.56
		1968	0.33	1.00	0.33	0.11	0.56	0.22	0.56	0.	0.11	0.33	1.00	1.34	5.90
		1969	6.10	0.51	0.34	0.	0.17	3.22	0.34	0.17	0.	0.34	0.34	4.24	15.77
		1970	0.82	0.	0.	0.	1.64	1.91	1.37	1.64	0.	0.55	3.55	1.64	13.12
		1971	0.52	0.39	1.30	0.39	4.15	0.26	1.17	0.65	0.	0.39	0.52	1.30	11.02
		1972	0.27	0.14	0.	0.41	1.09	1.23	0.27	1.50	1.64	3.41	0.95	1.36	12.27
		1973	2.21	3.00	0.63	0.16	0.32	0.47	0.47	0.63	0.	1.26	2.52	1.58	13.25
		1974	1.69	0.34	1.18	0.17	0.	0.	1.69	0.17	0.	1.69	1.01	1.35	9.28
		1975	0.73	1.89	1.78	1.36	0.42	0.52	0.10	1.89	0.73	0.84	0.21	0.10	10.59
		1976	0.33	1.50	0.67	0.50	0.33	0.50	1.00	1.17	1.67	0.67	0.17	0.	8.50
		1977	0.65	1.17	0.52	0.	2.09	2.22	0.	0.39	0.	0.13	1.69	3.00	11.86
		1978	0.19	0.58	2.49	0.38	0.	0.	0.19	0.38	1.92	0.38	0.96	0.58	8.05
		1979	0.78	0.16	0.31	0.47	0.	0.31	0.94	1.25	0.16	0.47	0.31	1.72	6.87
		1980	2.77	1.49	0.30	0.50	0.99	0.20	0.30	0.10	0.69	0.30	0.69	0.89	9.21
		MEAN	1.41	0.73	0.74	0.40	0.90	0.84	0.63	0.94	0.56	0.66	1.25	1.60	10.68

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
9	5910														
		1964	0.68	0.	0.91	0.45	3.17	2.27	0.	0.23	0.	0.68	1.36	4.53	14.28
		1965	2.61	0.33	0.82	1.63	0.65	1.63	1.96	3.27	0.82	0.	4.90	0.82	19.43
		1966	0.51	0.34	0.17	0.17	0.68	0.	0.	0.68	0.84	0.	1.01	4.05	8.44
		1967	4.78	0.	1.76	0.50	0.	0.	1.01	3.52	2.01	0.	1.76	0.75	16.09
		1968	0.46	1.39	0.46	0.15	0.77	0.31	0.77	0.	0.15	0.46	1.39	1.85	8.18
		1969	7.28	0.61	0.40	0.	0.20	3.84	0.40	0.20	0.	0.40	0.40	5.06	18.81
		1970	0.92	0.	0.	0.	1.83	2.14	1.53	1.83	0.	0.61	3.98	1.83	14.68
		1971	0.74	0.55	1.84	0.55	5.88	0.37	1.65	0.92	0.	0.55	0.74	1.84	15.62
		1972	0.35	0.17	0.	0.52	1.39	1.56	0.35	1.91	2.08	4.34	1.21	1.73	15.61
		1973	2.44	3.32	0.70	0.17	0.35	0.52	0.52	0.70	0.	1.40	2.79	1.75	14.67
		1974	1.76	0.35	1.23	0.18	0.	0.	1.76	0.18	0.	1.76	1.05	1.41	9.67
		1975	0.87	2.24	2.11	1.62	0.50	0.62	0.12	2.24	0.87	0.99	0.25	0.12	12.55
		1976	0.36	1.61	0.72	0.54	0.36	0.54	1.07	1.25	1.79	0.72	0.18	0.	9.12
		1977	0.80	1.44	0.64	0.	2.56	2.72	0.	0.48	0.	0.16	2.08	3.68	14.56
		1978	0.22	0.65	2.80	0.43	0.	0.	0.22	0.43	2.16	0.43	1.08	0.65	9.06
		1979	0.89	0.18	0.36	0.54	0.	0.36	1.07	1.43	0.18	0.54	0.36	1.96	7.85
		1980	2.31	1.24	0.25	0.41	0.82	0.16	0.25	0.08	0.58	0.25	0.58	0.74	7.67
		MEAN	1.63	0.84	0.88	0.46	1.11	1.00	0.74	1.13	0.67	0.77	1.47	1.91	12.60

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
10	6400	1964	0.70	0.	0.93	0.46	3.25	2.32	0.	0.23	0.	0.70	1.39	4.64	14.63
		1965	2.59	0.32	0.81	1.62	0.65	1.62	1.94	3.24	0.81	0.	4.85	0.81	19.25
		1966	0.53	0.35	0.18	0.18	0.71	0.	0.	0.71	0.88	0.	1.06	4.24	8.84
		1967	4.82	0.	1.78	0.51	0.	0.	1.02	3.55	2.03	0.	1.78	0.76	16.24
		1968	0.52	1.55	0.52	0.17	0.86	0.34	0.86	0.	0.17	0.52	1.55	2.06	9.11
		1969	8.30	0.69	0.46	0.	0.23	4.38	0.46	0.23	0.	0.46	0.46	5.76	21.44
		1970	0.84	0.	0.	0.	1.67	1.95	1.39	1.67	0.	0.56	3.62	1.67	13.37
		1971	0.76	0.57	1.91	0.57	6.10	0.38	1.72	0.95	0.	0.57	0.76	1.91	16.21
		1972	0.43	0.22	0.	0.65	1.73	1.94	0.43	2.38	2.59	5.40	1.51	2.16	19.45
		1973	2.29	3.11	0.65	0.16	0.33	0.49	0.49	0.65	0.	1.31	2.62	1.64	13.75
		1974	2.05	0.41	1.43	0.20	0.	0.	2.05	0.20	0.	2.05	1.23	1.64	11.25
		1975	0.94	2.43	2.29	1.75	0.54	0.67	0.13	2.43	0.94	1.08	0.27	0.13	13.61
		1976	0.36	1.64	0.73	0.55	0.36	0.55	1.09	1.28	1.82	0.73	0.18	0.	9.30
		1977	0.85	1.53	0.68	0.	2.72	2.89	0.	0.51	0.	0.17	2.21	3.92	15.49
		1978	0.16	0.47	2.06	0.32	0.	0.	0.16	0.32	1.58	0.32	0.79	0.47	6.64
		1979	0.95	0.19	0.38	0.57	0.	0.38	1.14	1.52	0.19	0.57	0.38	2.09	8.36
		1980	3.02	1.62	0.32	0.54	1.08	0.22	0.32	0.11	0.76	0.32	0.76	0.97	10.04
		MEAN	1.76	0.88	0.88	0.48	1.19	1.06	0.77	1.18	0.69	0.87	1.50	2.04	13.31

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
11	6960														
		1964	0.62	0.	0.82	0.41	2.88	2.06	0.	0.21	0.	0.62	1.24	4.12	12.98
		1965	2.71	0.34	0.85	1.69	0.68	1.69	2.03	3.38	0.85	0.	5.07	0.85	20.12
		1966	0.52	0.35	0.17	0.17	0.70	0.	0.	0.70	0.87	0.	1.05	4.18	8.71
		1967	6.32	0.	2.33	0.67	0.	0.	1.33	4.66	2.66	0.	2.33	1.00	21.30
		1968	0.48	1.45	0.48	0.16	0.80	0.32	0.80	0.	0.16	0.48	1.45	1.93	8.53
		1969	7.72	0.64	0.43	0.	0.21	4.08	0.43	0.21	0.	0.43	0.43	5.36	19.95
		1970	0.76	0.	0.	0.	1.52	1.77	1.26	1.52	0.	0.51	3.29	1.52	12.14
		1971	0.80	0.60	2.00	0.60	6.40	0.40	1.80	1.00	0.	0.60	0.80	2.00	17.00
		1972	0.44	0.22	0.	0.66	1.77	1.99	0.44	2.43	2.65	5.52	1.55	2.21	19.89
		1973	2.52	3.42	0.72	0.18	0.36	0.54	0.54	0.72	0.	1.44	2.88	1.80	15.10
		1974	1.82	0.36	1.28	0.18	0.	0.	1.82	0.18	0.	1.82	1.09	1.46	10.03
		1975	0.79	2.03	1.92	1.47	0.45	0.56	0.11	2.03	0.79	0.90	0.23	0.11	11.39
		1976	0.35	1.57	0.70	0.52	0.35	0.52	1.05	1.22	1.75	0.70	0.17	0.	8.92
		1977	0.81	1.45	0.65	0.	2.58	2.75	0.	0.48	0.	0.16	2.10	3.72	14.70
		1978	0.19	0.56	2.43	0.37	0.	0.	0.19	0.37	1.87	0.37	0.94	0.56	7.86
		1979	1.10	0.22	0.44	0.66	0.	0.44	1.33	1.77	0.22	0.66	0.44	2.43	9.72
		1980	2.86	1.53	0.31	0.51	1.02	0.20	0.31	0.10	0.72	0.31	0.72	0.92	9.50
		MEAN	1.81	0.87	0.91	0.49	1.16	1.03	0.79	1.23	0.73	0.86	1.52	2.01	13.39

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
12	6020														
		1964	0.53	0.	0.70	0.35	2.45	1.75	0.	0.18	0.	0.53	1.05	3.50	11.04
		1965	1.78	0.22	0.56	1.11	0.44	1.11	1.33	2.22	0.56	0.	3.33	0.56	13.21
		1966	0.34	0.23	0.11	0.11	0.45	0.	0.	0.45	0.56	0.	0.68	2.70	5.63
		1967	3.08	0.	1.13	0.32	0.	0.	0.65	2.27	1.30	0.	1.13	0.49	10.36
		1968	0.31	0.93	0.31	0.10	0.51	0.21	0.51	0.	0.10	0.31	0.93	1.23	5.45
		1969	6.61	0.55	0.37	0.	0.18	3.49	0.37	0.18	0.	0.37	0.37	4.59	17.07
		1970	0.69	0.	0.	0.	1.38	1.61	1.15	1.38	0.	0.46	3.00	1.38	11.06
		1971	0.63	0.47	1.58	0.47	5.05	0.32	1.42	0.79	0.	0.47	0.63	1.58	13.42
		1972	0.28	0.14	0.	0.42	1.13	1.27	0.28	1.55	1.70	3.53	0.99	1.41	12.72
		1973	1.68	2.28	0.48	0.12	0.24	0.36	0.36	0.48	0.	0.96	1.92	1.20	10.07
		1974	1.54	0.31	1.08	0.15	0.	0.	1.54	0.15	0.	1.54	0.92	1.23	8.45
		1975	0.72	1.85	1.74	1.33	0.41	0.51	0.10	1.85	0.72	0.82	0.21	0.10	10.36
		1976	0.35	1.56	0.69	0.52	0.35	0.52	1.04	1.21	1.73	0.69	0.17	0.	8.83
		1977	0.59	1.07	0.48	0.	1.90	2.02	0.	0.36	0.	0.12	1.55	2.73	10.82
		MEAN	1.39	0.70	0.68	0.37	1.04	0.95	0.64	0.96	0.49	0.71	1.23	1.64	10.79

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
13	6320														
		1964	0.52	0.	0.69	0.34	2.40	1.72	0.	0.17	0.	0.52	1.03	3.43	10.82
		1965	1.94	0.24	0.61	1.21	0.48	1.21	1.45	2.42	0.61	0.	3.63	0.61	14.40
		1966	0.39	0.26	0.13	0.13	0.52	0.	0.	0.52	0.66	0.	0.79	3.14	6.55
		1967	4.28	0.	1.58	0.45	0.	0.	0.90	3.15	1.80	0.	1.58	0.68	14.42
		1968	0.34	1.03	0.34	0.11	0.57	0.23	0.57	0.	0.11	0.34	1.03	1.38	6.09
		1969	6.73	0.56	0.37	0.	0.19	3.55	0.37	0.19	0.	0.37	0.37	4.67	17.39
		1970	0.67	0.	0.	0.	1.33	1.56	1.11	1.33	0.	0.44	2.89	1.33	10.67
		1971	0.58	0.44	1.46	0.44	4.67	0.29	1.31	0.73	0.	0.44	0.58	1.46	12.41
		1972	0.26	0.13	0.	0.40	1.06	1.19	0.26	1.46	1.59	3.31	0.93	1.32	11.91
		1973	1.96	2.66	0.56	0.14	0.28	0.42	0.42	0.56	0.	1.12	2.24	1.40	11.78
		1974	1.43	0.29	1.00	0.14	0.	0.	1.43	0.14	0.	1.43	0.86	1.14	7.87
		1975	0.79	2.03	1.91	1.46	0.45	0.56	0.11	2.03	0.79	0.90	0.23	0.11	11.37
		1976	0.35	1.59	0.71	0.53	0.35	0.53	1.06	1.23	1.76	0.71	0.18	0.	8.99
		1977	0.55	0.99	0.44	0.	1.76	1.87	0.	0.33	0.	0.11	1.43	2.53	10.00
		MEAN	1.48	0.72	0.70	0.38	1.01	0.94	0.64	1.01	0.52	0.70	1.26	1.66	11.03

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
14	5320														
		1964	0.55	0.	0.74	0.37	2.58	1.85	0.	0.18	0.	0.55	1.11	3.69	11.63
		1965	1.60	0.20	0.50	1.00	0.40	1.00	1.20	2.00	0.50	0.	3.00	0.50	11.91
		1966	0.33	0.22	0.11	0.11	0.44	0.	0.	0.44	0.54	0.	0.65	2.61	5.44
		1967	2.75	0.	1.01	0.29	0.	0.	0.58	2.03	1.16	0.	1.01	0.43	9.26
		1968	0.23	0.68	0.23	0.08	0.38	0.15	0.38	0.	0.08	0.23	0.68	0.91	4.03
		1969	4.67	0.39	0.26	0.	0.13	2.47	0.26	0.13	0.	0.26	0.26	3.24	12.07
		1970	0.45	0.	0.	0.	0.91	1.06	0.76	0.91	0.	0.30	1.97	0.91	7.26
		1971	0.58	0.43	1.44	0.43	4.62	0.29	1.30	0.72	0.	0.43	0.58	1.44	12.28
		1972	0.14	0.07	0.	0.21	0.57	0.64	0.14	0.78	0.85	1.77	0.50	0.71	6.37
		1973	1.42	1.93	0.41	0.10	0.20	0.31	0.31	0.41	0.	0.81	1.63	1.02	8.55
		1974	1.23	0.25	0.86	0.12	0.	0.	1.23	0.12	0.	1.23	0.74	0.98	6.74
		1975	0.76	1.97	1.86	1.42	0.44	0.55	0.11	1.97	0.76	0.87	0.22	0.11	11.03
		1976	0.22	1.01	0.45	0.34	0.22	0.34	0.67	0.78	1.12	0.45	0.11	0.	5.70
		1977	0.49	0.88	0.39	0.	1.56	1.66	0.	0.29	0.	0.10	1.27	2.25	8.90
		MEAN	1.13	0.59	0.59	0.33	0.90	0.75	0.50	0.79	0.37	0.51	1.00	1.37	8.82

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
15	5200														
		1964	0.48	0.	0.64	0.32	2.23	1.59	0.	0.16	0.	0.48	0.96	3.19	10.04
		1965	1.57	0.20	0.49	0.98	0.39	0.98	1.18	1.96	0.49	0.	2.94	0.49	11.68
		1966	0.22	0.15	0.07	0.07	0.30	0.	0.	0.30	0.37	0.	0.44	1.77	3.69
		1967	2.15	0.	0.79	0.23	0.	0.	0.45	1.59	0.91	0.	0.79	0.34	7.25
		1968	0.21	0.63	0.21	0.07	0.35	0.14	0.35	0.	0.07	0.21	0.63	0.84	3.72
		1969	3.53	0.29	0.20	0.	0.10	1.86	0.20	0.10	0.	0.20	0.20	2.45	9.11
		1970	0.35	0.	0.	0.	0.71	0.82	0.59	0.71	0.	0.24	1.53	0.71	5.65
		1971	0.39	0.29	0.98	0.29	3.14	0.20	0.88	0.49	0.	0.29	0.39	0.98	8.34
		1972	0.15	0.08	0.	0.23	0.61	0.69	0.15	0.84	0.91	1.90	0.53	0.76	6.85
		1973	1.16	1.58	0.33	0.08	0.17	0.25	0.25	0.33	0.	0.66	1.33	0.83	6.97
		1974	0.79	0.16	0.55	0.08	0.	0.	0.79	0.08	0.	0.79	0.47	0.63	4.33
		1975	0.43	1.12	1.06	0.81	0.25	0.31	0.06	1.12	0.43	0.50	0.12	0.06	6.27
		1976	0.25	1.12	0.50	0.37	0.25	0.37	0.74	0.87	1.24	0.50	0.12	0.	6.32
		1977	0.40	0.73	0.32	0.	1.29	1.37	0.	0.24	0.	0.08	1.05	1.86	7.34
		MEAN	0.88	0.46	0.45	0.26	0.72	0.62	0.41	0.64	0.32	0.43	0.84	1.09	7.10

TABLE B-3-2; PRECIPITATION RECORD OF CARSON CITY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CHURCHILL CANYON

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
16	5220	1964	0.51	0.	0.68	0.34	2.39	1.71	0.	0.17	0.	0.51	1.02	3.41	10.75
		1965	1.68	0.21	0.53	1.05	0.42	1.05	1.26	2.10	0.53	0.	3.16	0.53	12.52
		1966	0.25	0.17	0.08	0.08	0.33	0.	0.	0.33	0.41	0.	0.50	1.99	4.14
		1967	2.33	0.	0.86	0.24	0.	0.	0.49	1.71	0.98	0.	0.86	0.37	7.84
		1968	0.19	0.58	0.19	0.06	0.32	0.13	0.32	0.	0.06	0.19	0.58	0.78	3.44
		1969	4.44	0.37	0.25	0.	0.12	2.35	0.25	0.12	0.	0.25	0.25	3.09	11.48
		1970	0.64	0.	0.	0.	1.28	1.49	1.07	1.28	0.	0.43	2.77	1.28	10.23
		1971	0.43	0.32	1.07	0.32	3.44	0.21	0.97	0.54	0.	0.32	0.43	1.07	9.13
		1972	0.11	0.06	0.	0.17	0.45	0.51	0.11	0.62	0.68	1.41	0.39	0.56	5.07
		1973	1.23	1.66	0.35	0.09	0.18	0.26	0.26	0.35	0.	0.70	1.40	0.88	7.36
		1974	0.86	0.17	0.60	0.09	0.	0.	0.86	0.09	0.	0.86	0.51	0.69	4.71
		1975	0.42	1.07	1.01	0.77	0.24	0.30	0.06	1.07	0.42	0.48	0.12	0.06	6.02
		1976	0.22	1.00	0.45	0.33	0.22	0.33	0.67	0.78	1.11	0.45	0.11	0.	5.68
		1977	0.45	0.81	0.36	0.	1.45	1.54	0.	0.27	0.	0.09	1.17	2.08	8.22
		MEAN	0.98	0.46	0.46	0.25	0.77	0.70	0.45	0.67	0.30	0.41	0.94	1.19	7.58

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
1	6395														
		1963	0.	0.51	0.13	0.76	0.38	3.93	0.	0.38	1.40	0.89	0.51	0.13	9.01
		1964	0.70	0.	0.28	2.24	1.26	2.38	0.	0.70	0.28	0.28	0.42	1.12	9.67
		1965	0.16	0.32	0.48	1.75	0.32	1.91	1.59	4.45	0.95	0.32	1.75	1.11	15.11
		1966	0.17	0.69	0.17	0.	0.69	0.35	0.87	0.52	1.04	0.	0.17	1.04	5.72
		1967	0.68	0.	0.27	1.63	1.49	2.03	1.90	0.81	2.03	0.	0.27	0.41	11.52
		1968	0.24	1.09	0.49	0.36	0.49	1.95	1.22	1.70	0.85	1.09	0.97	2.19	12.65
		1969	1.62	1.46	0.65	0.49	0.	1.62	1.30	1.46	0.	0.49	1.46	0.49	11.04
		1970	0.81	0.41	0.61	0.81	0.20	1.63	2.85	1.22	0.81	0.	2.24	1.43	13.04
		1971	0.24	0.36	0.	0.71	2.62	0.36	0.60	0.71	0.12	0.24	0.83	1.07	7.86
		1972	0.42	0.28	0.14	0.14	0.28	1.67	0.14	0.84	0.84	1.39	0.56	0.56	7.25
		1973	1.32	0.49	1.48	0.16	0.49	0.	0.49	1.64	0.16	0.82	0.66	1.81	9.54
		1974	1.26	0.38	0.13	0.38	0.63	0.	0.76	0.	0.	2.40	0.38	0.50	6.81
		1975	0.36	0.	2.53	0.	0.	0.54	0.36	0.72	1.44	2.17	0.	0.18	8.30
		1976	0.67	0.56	0.45	0.34	0.90	0.11	1.57	0.45	1.12	1.23	0.22	0.90	8.53
		1977	0.37	0.25	0.37	0.25	2.33	1.84	0.98	5.39	0.61	0.12	0.49	0.61	13.60
		1978	1.08	0.94	3.10	1.21	0.40	0.27	0.13	0.94	4.59	0.94	1.21	0.94	15.78
		1979	0.38	0.50	1.51	0.13	0.63	0.25	1.89	0.50	0.	0.25	0.13	0.25	6.41
		1980	0.56	0.85	0.47	0.19	3.20	0.	1.41	0.38	2.54	0.09	0.75	0.28	10.72
		MEAN	0.65	0.50	0.74	0.64	0.91	1.16	1.00	1.27	1.04	0.71	0.72	0.83	10.18

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
2	6585	1963	0.	0.60	0.15	0.89	0.45	4.62	0.	0.45	1.64	1.04	0.60	0.15	10.57
		1964	0.73	0.	0.29	2.34	1.32	2.49	0.	0.73	0.29	0.29	0.44	1.17	10.11
		1965	0.16	0.32	0.47	1.74	0.32	1.89	1.58	4.42	0.95	0.32	1.74	1.10	14.99
		1966	0.20	0.81	0.20	0.	0.81	0.41	1.02	0.61	1.22	0.	0.20	1.22	6.70
		1967	0.69	0.	0.28	1.66	1.52	2.07	1.93	0.83	2.07	0.	0.28	0.41	11.73
		1968	0.25	1.15	0.51	0.38	0.51	2.04	1.27	1.78	0.89	1.15	1.02	2.29	13.24
		1969	1.76	1.58	0.70	0.53	0.	1.76	1.41	1.58	0.	0.53	1.58	0.53	11.97
		1970	0.85	0.43	0.64	0.85	0.21	1.70	2.98	1.28	0.85	0.	2.34	1.49	13.64
		1971	0.26	0.39	0.	0.77	2.82	0.39	0.64	0.77	0.13	0.26	0.90	1.16	8.47
		1972	0.51	0.34	0.17	0.17	0.34	2.03	0.17	1.02	1.02	1.69	0.68	0.68	8.80
		1973	1.30	0.49	1.47	0.16	0.49	0.	0.49	1.63	0.16	0.82	0.65	1.79	9.46
		1974	1.34	0.40	0.13	0.40	0.67	0.	0.80	0.	0.	2.54	0.40	0.53	7.22
		1975	0.35	0.	2.48	0.	0.	0.53	0.35	0.71	1.42	2.13	0.	0.18	8.15
		1976	0.72	0.60	0.48	0.36	0.96	0.12	1.68	0.48	1.20	1.32	0.24	0.96	9.12
		1977	0.38	0.25	0.38	0.25	2.40	1.90	1.01	5.57	0.63	0.13	0.51	0.63	14.04
		1978	1.10	0.96	3.15	1.23	0.41	0.27	0.14	0.96	4.66	0.96	1.23	0.96	16.04
		1979	0.31	0.41	1.23	0.10	0.51	0.21	1.54	0.41	0.	0.21	0.10	0.21	5.24
		1980	0.60	0.91	0.50	0.20	3.42	0.	1.51	0.40	2.72	0.10	0.80	0.30	11.47
		MEAN	0.68	0.53	0.74	0.67	0.95	1.24	1.03	1.31	1.10	0.75	0.76	0.87	10.62

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
3	6445														
		1963	0.	0.53	0.13	0.80	0.40	4.11	0.	0.40	1.46	0.93	0.53	0.13	9.41
		1964	0.68	0.	0.27	2.19	1.23	2.33	0.	0.68	0.27	0.27	0.41	1.09	9.44
		1965	0.16	0.31	0.47	1.71	0.31	1.86	1.55	4.34	0.93	0.31	1.71	1.09	14.73
		1966	0.19	0.77	0.19	0.	0.77	0.38	0.96	0.57	1.15	0.	0.19	1.15	6.32
		1967	0.71	0.	0.28	1.70	1.56	2.13	1.99	0.85	2.13	0.	0.28	0.43	12.07
		1968	0.26	1.16	0.51	0.39	0.51	2.06	1.29	1.80	0.90	1.16	1.03	2.31	13.37
		1969	1.80	1.62	0.72	0.54	0.	1.80	1.44	1.62	0.	0.54	1.62	0.54	12.27
		1970	0.82	0.41	0.62	0.82	0.21	1.64	2.87	1.23	0.82	0.	2.26	1.44	13.14
		1971	0.22	0.33	0.	0.65	2.40	0.33	0.54	0.65	0.11	0.22	0.76	0.98	7.19
		1972	0.51	0.34	0.17	0.17	0.34	2.03	0.17	1.02	1.02	1.69	0.68	0.68	8.81
		1973	1.23	0.46	1.38	0.15	0.46	0.	0.46	1.54	0.15	0.77	0.62	1.69	8.92
		1974	1.33	0.40	0.13	0.40	0.66	0.	0.80	0.	0.	2.52	0.40	0.53	7.17
		1975	0.35	0.	2.48	0.	0.	0.53	0.35	0.71	1.42	2.13	0.	0.18	8.15
		1976	0.72	0.60	0.48	0.36	0.96	0.12	1.67	0.48	1.20	1.32	0.24	0.96	9.09
		1977	0.41	0.27	0.41	0.27	2.61	2.06	1.10	6.05	0.69	0.14	0.55	0.69	15.26
		1978	1.08	0.95	3.11	1.22	0.41	0.27	0.14	0.95	4.59	0.95	1.22	0.95	15.80
		MEAN	0.70	0.51	0.71	0.71	0.81	1.35	0.96	1.42	1.05	0.80	0.78	0.92	10.73

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
4	6265														
		1963	0.	0.45	0.11	0.68	0.34	3.52	0.	0.34	1.25	0.79	0.45	0.11	8.06
		1964	0.70	0.	0.28	2.23	1.25	2.37	0.	0.70	0.28	0.28	0.42	1.12	9.62
		1965	0.16	0.32	0.48	1.75	0.32	1.91	1.59	4.46	0.95	0.32	1.75	1.11	15.12
		1966	0.20	0.78	0.20	0.	0.78	0.39	0.98	0.59	1.17	0.	0.20	1.17	6.44
		1967	0.69	0.	0.28	1.65	1.51	2.06	1.93	0.83	2.06	0.	0.28	0.41	11.69
		1968	0.23	1.03	0.46	0.34	0.46	1.84	1.15	1.61	0.80	1.03	0.92	2.07	11.94
		1969	1.58	1.42	0.63	0.47	0.	1.58	1.26	1.42	0.	0.47	1.42	0.47	10.75
		1970	0.81	0.41	0.61	0.81	0.20	1.63	2.85	1.22	0.81	0.	2.24	1.42	13.01
		1971	0.24	0.36	0.	0.73	2.66	0.36	0.61	0.73	0.12	0.24	0.85	1.09	7.99
		1972	0.46	0.31	0.15	0.15	0.31	1.85	0.15	0.92	0.92	1.54	0.62	0.62	8.00
		1973	1.21	0.45	1.36	0.15	0.45	0.	0.45	1.52	0.15	0.76	0.61	1.67	8.79
		1974	1.26	0.38	0.13	0.38	0.63	0.	0.75	0.	0.	2.39	0.38	0.50	6.78
		1975	0.33	0.	2.34	0.	0.	0.50	0.33	0.67	1.34	2.00	0.	0.17	7.68
		1976	0.65	0.54	0.43	0.33	0.87	0.11	1.52	0.43	1.09	1.20	0.22	0.87	8.26
		1977	0.34	0.23	0.34	0.23	2.15	1.69	0.90	4.97	0.56	0.11	0.45	0.56	12.54
		1978	1.05	0.92	3.01	1.18	0.39	0.26	0.13	0.92	4.45	0.92	1.18	0.92	15.33
		1979	0.42	0.56	1.67	0.14	0.70	0.28	2.09	0.56	0.	0.28	0.14	0.28	7.10
		1980	0.61	0.92	0.51	0.20	3.47	0.	1.53	0.41	2.76	0.10	0.82	0.31	11.64
		MEAN	0.65	0.50	0.72	0.64	0.91	1.14	1.01	1.25	1.04	0.70	0.72	0.83	10.11

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
5	6305														
		1963	0.	0.48	0.12	0.73	0.36	3.75	0.	0.36	1.33	0.85	0.48	0.12	8.60
		1964	0.68	0.	0.27	2.17	1.22	2.30	0.	0.68	0.27	0.27	0.41	1.08	9.34
		1965	0.16	0.33	0.49	1.80	0.33	1.97	1.64	4.59	0.98	0.33	1.80	1.15	15.57
		1966	0.18	0.74	0.18	0.	0.74	0.37	0.92	0.55	1.11	0.	0.18	1.11	6.08
		1967	0.95	0.	0.38	2.27	2.08	2.84	2.65	1.14	2.84	0.	0.38	0.57	16.10
		1968	0.26	1.18	0.52	0.39	0.52	2.10	1.31	1.83	0.92	1.18	1.05	2.36	13.63
		1969	1.65	1.48	0.66	0.50	0.	1.65	1.32	1.48	0.	0.50	1.48	0.50	11.22
		1970	0.93	0.46	0.70	0.93	0.23	1.86	3.25	1.39	0.93	0.	2.55	1.63	14.86
		1971	0.25	0.37	0.	0.74	2.71	0.37	0.62	0.74	0.12	0.25	0.86	1.11	8.12
		1972	0.44	0.30	0.15	0.15	0.30	1.78	0.15	0.89	0.89	1.48	0.59	0.59	7.70
		1973	1.35	0.50	1.51	0.17	0.50	0.	0.50	1.68	0.17	0.84	0.67	1.85	9.76
		1974	1.14	0.34	0.11	0.34	0.57	0.	0.68	0.	0.	2.17	0.34	0.46	6.16
		1975	0.38	0.	2.66	0.	0.	0.57	0.38	0.76	1.52	2.28	0.	0.19	8.73
		1976	0.70	0.58	0.46	0.35	0.93	0.12	1.63	0.46	1.16	1.28	0.23	0.93	8.83
		1977	0.41	0.27	0.41	0.27	2.58	2.04	1.09	5.97	0.68	0.14	0.54	0.68	15.07
		1978	1.06	0.93	3.05	1.19	0.40	0.27	0.13	0.93	4.51	0.93	1.19	0.93	15.52
		MEAN	0.70	0.50	0.73	0.74	0.85	1.36	1.02	1.45	1.09	0.77	0.79	0.95	10.95

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN	ELEVATION	YEAR					MONTH (INCHES)								TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
6	6110														
		1963	0.	0.39	0.10	0.58	0.29	3.01	0.	0.29	1.07	0.68	0.39	0.10	6.89
		1964	0.69	0.	0.28	2.21	1.24	2.35	0.	0.69	0.28	0.28	0.41	1.10	9.53
		1965	0.14	0.28	0.42	1.56	0.28	1.70	1.41	3.96	0.85	0.28	1.56	0.99	13.44
		1966	0.19	0.76	0.19	0.	0.76	0.38	0.95	0.57	1.15	0.	0.19	1.15	6.30
		1967	0.82	0.	0.33	1.97	1.81	2.46	2.30	0.99	2.46	0.	0.33	0.49	13.96
		1968	0.25	1.14	0.51	0.38	0.51	2.02	1.26	1.77	0.89	1.14	1.01	2.28	13.15
		1969	1.64	1.48	0.66	0.49	0.	1.64	1.32	1.48	0.	0.49	1.48	0.49	11.18
		1970	0.73	0.37	0.55	0.73	0.18	1.47	2.57	1.10	0.73	0.	2.02	1.28	11.74
		1971	0.22	0.33	0.	0.66	2.41	0.33	0.55	0.66	0.11	0.22	0.77	0.99	7.24
		1972	0.41	0.27	0.14	0.14	0.27	1.63	0.14	0.82	0.82	1.36	0.54	0.54	7.08
		1973	1.24	0.46	1.39	0.15	0.46	0.	0.46	1.55	0.15	0.77	0.62	1.70	8.99
		1974	1.12	0.33	0.11	0.33	0.56	0.	0.67	0.	0.	2.12	0.33	0.45	6.03
		1975	0.33	0.	2.28	0.	0.	0.49	0.33	0.65	1.30	1.96	0.	0.16	7.50
		1976	0.60	0.50	0.40	0.30	0.80	0.10	1.39	0.40	0.99	1.09	0.20	0.80	7.56
		1977	0.36	0.24	0.36	0.24	2.25	1.78	0.95	5.21	0.59	0.12	0.47	0.59	13.15
		1978	1.12	0.98	3.21	1.26	0.42	0.28	0.14	0.98	4.75	0.98	1.26	0.98	16.33
		MEAN	0.66	0.47	0.69	0.69	0.77	1.24	0.91	1.33	1.01	0.72	0.73	0.88	10.10

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
7	6040														
		1963	0.	0.42	0.11	0.63	0.32	3.26	0.	0.32	1.16	0.74	0.42	0.11	7.47
		1964	0.66	0.	0.27	2.12	1.19	2.25	0.	0.66	0.27	0.27	0.40	1.06	9.15
		1965	0.13	0.26	0.40	1.45	0.26	1.58	1.32	3.69	0.79	0.26	1.45	0.92	12.52
		1966	0.18	0.74	0.18	0.	0.74	0.37	0.92	0.55	1.11	0.	0.18	1.11	6.09
		1967	0.82	0.	0.33	1.97	1.80	2.46	2.29	0.98	2.46	0.	0.33	0.49	13.93
		1968	0.23	1.06	0.47	0.35	0.47	1.88	1.17	1.64	0.82	1.06	0.94	2.11	12.21
		1969	1.41	1.27	0.56	0.42	0.	1.41	1.13	1.27	0.	0.42	1.27	0.42	9.60
		1970	0.70	0.35	0.53	0.70	0.18	1.41	2.47	1.06	0.70	0.	1.94	1.23	11.27
		1971	0.22	0.33	0.	0.65	2.39	0.33	0.54	0.65	0.11	0.22	0.76	0.98	7.16
		1972	0.40	0.27	0.13	0.13	0.27	1.62	0.13	0.81	0.81	1.35	0.54	0.54	7.00
		1973	1.12	0.42	1.26	0.14	0.42	0.	0.42	1.40	0.14	0.70	0.56	1.54	8.10
		1974	1.20	0.36	0.12	0.36	0.60	0.	0.72	0.	0.	2.28	0.36	0.48	6.49
		1975	0.31	0.	2.18	0.	0.	0.47	0.31	0.62	1.25	1.87	0.	0.16	7.17
		1976	0.61	0.51	0.41	0.31	0.81	0.10	1.43	0.41	1.02	1.12	0.20	0.81	7.74
		1977	0.35	0.23	0.35	0.23	2.22	1.75	0.93	5.14	0.58	0.12	0.47	0.58	12.96
		1978	1.09	0.95	3.12	1.22	0.41	0.27	0.14	0.95	4.62	0.95	1.22	0.95	15.89
		MEAN	0.63	0.45	0.65	0.67	0.76	1.20	0.87	1.26	0.99	0.71	0.69	0.85	9.73

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
8	6075	1963	0.	0.48	0.12	0.72	0.36	3.70	0.	0.36	1.31	0.84	0.48	0.12	8.48
		1964	0.59	0.	0.24	1.90	1.07	2.02	0.	0.59	0.24	0.24	0.36	0.95	8.19
		1965	0.13	0.26	0.39	1.42	0.26	1.55	1.29	3.62	0.78	0.26	1.42	0.91	12.29
		1966	0.20	0.79	0.20	0.	0.79	0.40	0.99	0.60	1.19	0.	0.20	1.19	6.55
		1967	0.74	0.	0.29	1.77	1.62	2.21	2.06	0.88	2.21	0.	0.29	0.44	12.51
		1968	0.20	0.90	0.40	0.30	0.40	1.59	1.00	1.39	0.70	0.90	0.80	1.79	10.35
		1969	1.66	1.49	0.66	0.50	0.	1.66	1.33	1.49	0.	0.50	1.49	0.50	11.27
		1970	0.78	0.39	0.58	0.78	0.19	1.56	2.72	1.17	0.78	0.	2.14	1.36	12.45
		1971	0.21	0.32	0.	0.64	2.36	0.32	0.54	0.64	0.11	0.21	0.75	0.96	7.07
		1972	0.43	0.29	0.14	0.14	0.29	1.71	0.14	0.86	0.86	1.43	0.57	0.57	7.43
		1973	1.08	0.40	1.21	0.13	0.40	0.	0.40	1.35	0.13	0.67	0.54	1.48	7.82
		1974	1.04	0.31	0.10	0.31	0.52	0.	0.62	0.	0.	1.97	0.31	0.42	5.61
		1975	0.30	0.	2.13	0.	0.	0.46	0.30	0.61	1.22	1.83	0.	0.15	7.00
		1976	0.66	0.55	0.44	0.33	0.88	0.11	1.53	0.44	1.10	1.21	0.22	0.88	8.33
		1977	0.35	0.23	0.35	0.23	2.20	1.74	0.93	5.09	0.58	0.12	0.46	0.58	12.85
		1978	1.11	0.97	3.18	1.25	0.42	0.28	0.14	0.97	4.71	0.97	1.25	0.97	16.20
		MEAN	0.63	0.46	0.65	0.65	0.74	1.21	0.87	1.25	0.99	0.70	0.70	0.83	9.69

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
9	5805														
		1963	0.	0.42	0.10	0.63	0.31	3.25	0.	0.31	1.15	0.73	0.42	0.10	7.45
		1964	0.52	0.	0.21	1.67	0.94	1.77	0.	0.52	0.21	0.21	0.31	0.83	7.20
		1965	0.12	0.23	0.35	1.27	0.23	1.38	1.15	3.23	0.69	0.23	1.27	0.81	10.95
		1966	0.17	0.68	0.17	0.	0.68	0.34	0.86	0.51	1.03	0.	0.17	1.03	5.65
		1967	0.55	0.	0.22	1.33	1.22	1.66	1.55	0.66	1.66	0.	0.22	0.33	9.42
		1968	0.20	0.90	0.40	0.30	0.40	1.60	1.00	1.40	0.70	0.90	0.80	1.80	10.38
		1969	1.49	1.34	0.60	0.45	0.	1.49	1.19	1.34	0.	0.45	1.34	0.45	10.12
		1970	0.72	0.36	0.54	0.72	0.18	1.44	2.51	1.08	0.72	0.	1.97	1.26	11.48
		1971	0.19	0.28	0.	0.56	2.04	0.28	0.46	0.56	0.09	0.19	0.65	0.84	6.13
		1972	0.39	0.26	0.13	0.13	0.26	1.55	0.13	0.78	0.78	1.29	0.52	0.52	6.73
		1973	0.98	0.37	1.10	0.12	0.37	0.	0.37	1.22	0.12	0.61	0.49	1.34	7.09
		1974	1.12	0.34	0.11	0.34	0.56	0.	0.67	0.	0.	2.13	0.34	0.45	6.04
		1975	0.32	0.	2.27	0.	0.	0.49	0.32	0.65	1.30	1.94	0.	0.16	7.45
		1976	0.55	0.46	0.37	0.27	0.73	0.09	1.28	0.37	0.91	1.01	0.18	0.73	6.95
		1977	0.32	0.22	0.32	0.22	2.05	1.62	0.86	4.74	0.54	0.11	0.43	0.54	11.96
		1978	0.95	0.83	2.73	1.07	0.36	0.24	0.12	0.83	4.03	0.83	1.07	0.83	13.88
		1979	0.40	0.53	1.60	0.13	0.67	0.27	2.00	0.53	0.	0.27	0.13	0.27	6.81
		1980	0.52	0.78	0.43	0.17	2.95	0.	1.30	0.35	2.34	0.09	0.69	0.26	9.88
		MEAN	0.56	0.44	0.65	0.53	0.77	0.98	0.88	1.07	0.91	0.61	0.62	0.70	8.73

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
10	5800														
		1963	0.	0.43	0.14	0.57	0.	3.97	0.	0.43	1.42	0.28	0.28	0.	7.51
		1964	0.27	0.	0.13	1.74	0.93	1.20	0.	1.20	0.	0.13	0.27	0.13	6.01
		1965	0.	0.49	0.16	1.62	0.16	1.30	0.65	2.75	0.	0.32	1.46	1.46	10.37
		1966	0.	0.49	0.25	0.	0.99	0.	1.97	0.	1.73	0.	0.25	1.73	7.40
		1967	0.91	0.	0.	0.61	1.21	0.	3.03	0.	2.73	0.	0.30	0.91	9.71
		1968	0.15	1.66	0.15	0.45	0.30	0.76	1.36	1.97	0.91	1.21	0.	1.51	10.43
		1969	1.29	1.07	0.	0.21	0.	1.29	1.07	2.57	0.21	0.43	1.50	0.43	10.08
		1970	0.62	0.21	0.42	0.21	0.42	1.46	3.74	1.66	0.42	0.	0.83	1.25	11.23
		1971	0.11	0.22	0.	0.43	2.17	0.22	0.43	0.33	0.	0.11	0.33	0.87	5.21
		1972	0.23	0.12	0.	0.	0.47	0.93	0.	0.35	0.70	2.10	0.23	0.35	5.48
		1973	0.74	0.15	0.89	0.	0.	0.	0.30	1.19	0.15	1.78	0.74	0.45	6.38
		1974	0.29	0.	0.44	0.15	0.29	0.	0.73	0.15	0.	2.63	0.29	0.44	5.41
		1975	0.79	0.	1.98	0.	0.	0.40	0.20	0.59	0.99	1.58	0.	0.20	6.73
		1976	0.43	0.32	0.11	0.22	0.76	0.22	1.73	0.32	1.51	0.97	0.	0.65	7.25
		1977	0.38	0.25	0.13	0.13	2.26	1.01	0.63	5.40	0.50	0.	0.25	0.38	11.31
		1978	0.68	1.02	1.70	0.34	0.	0.	0.	1.02	5.95	2.04	0.68	0.85	14.27
		1979	0.31	0.47	1.56	0.	0.	0.16	2.18	0.78	0.16	0.31	0.16	0.	6.08
		1980	0.77	0.87	0.58	0.29	3.85	0.	1.35	0.19	2.21	0.	0.58	0.19	10.88
		MEAN	0.47	0.43	0.49	0.39	0.77	0.73	1.07	1.16	1.08	0.76	0.46	0.66	8.47

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
11	5850														
		1963	0.	0.41	0.10	0.61	0.31	3.17	0.	0.31	1.13	0.72	0.41	0.10	7.27
		1964	0.49	0.	0.20	1.56	0.88	1.66	0.	0.49	0.20	0.20	0.29	0.78	6.73
		1965	0.11	0.23	0.34	1.26	0.23	1.37	1.15	3.21	0.69	0.23	1.26	0.80	10.88
		1966	0.20	0.82	0.20	0.	0.82	0.41	1.02	0.61	1.23	0.	0.20	1.23	6.74
		1967	0.63	0.	0.25	1.51	1.38	1.88	1.76	0.75	1.88	0.	0.25	0.38	10.68
		1968	0.20	0.91	0.40	0.30	0.40	1.62	1.01	1.42	0.71	0.91	0.81	1.82	10.52
		1969	1.39	1.25	0.56	0.42	0.	1.39	1.11	1.25	0.	0.42	1.25	0.42	9.44
		1970	0.73	0.37	0.55	0.73	0.18	1.46	2.56	1.10	0.73	0.	2.01	1.28	11.70
		1971	0.20	0.29	0.	0.59	2.15	0.29	0.49	0.59	0.10	0.20	0.68	0.88	6.44
		1972	0.38	0.25	0.13	0.13	0.25	1.52	0.13	0.76	0.76	1.27	0.51	0.51	6.58
		1973	1.06	0.40	1.19	0.13	0.40	0.	0.40	1.32	0.13	0.66	0.53	1.46	7.68
		1974	1.06	0.32	0.11	0.32	0.53	0.	0.64	0.	0.	2.01	0.32	0.42	5.72
		1975	0.28	0.	1.93	0.	0.	0.41	0.28	0.55	1.10	1.65	0.	0.14	6.33
		1976	0.60	0.50	0.40	0.30	0.80	0.10	1.39	0.40	0.99	1.09	0.20	0.80	7.56
		1977	0.31	0.21	0.31	0.21	1.96	1.54	0.82	4.53	0.51	0.10	0.41	0.51	11.43
		1978	1.01	0.88	2.91	1.14	0.38	0.25	0.13	0.88	4.30	0.88	1.14	0.88	14.78
		1979	0.36	0.48	1.45	0.12	0.60	0.24	1.81	0.48	0.	0.24	0.12	0.24	6.17
		1980	0.58	0.86	0.48	0.19	3.26	0.	1.44	0.38	2.59	0.10	0.77	0.29	10.93
		MEAN	0.56	0.45	0.63	0.52	0.80	0.95	0.90	1.06	0.95	0.60	0.61	0.72	8.77

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
12	5970														
		1963	0.	0.37	0.09	0.56	0.28	2.89	0.	0.28	1.03	0.65	0.37	0.09	6.63
		1964	0.58	0.	0.23	1.85	1.04	1.96	0.	0.58	0.23	0.23	0.35	0.92	7.96
		1965	0.13	0.25	0.38	1.38	0.25	1.50	1.25	3.50	0.75	0.25	1.38	0.88	11.88
		1966	0.19	0.77	0.19	0.	0.77	0.38	0.96	0.58	1.15	0.	0.19	1.15	6.34
		1967	0.50	0.	0.20	1.19	1.09	1.49	1.39	0.59	1.49	0.	0.20	0.30	8.42
		1968	0.23	1.02	0.45	0.34	0.45	1.82	1.13	1.59	0.79	1.02	0.91	2.04	11.80
		1969	1.59	1.43	0.64	0.48	0.	1.59	1.28	1.43	0.	0.48	1.43	0.48	10.84
		1970	0.68	0.34	0.51	0.68	0.17	1.35	2.37	1.01	0.68	0.	1.86	1.18	10.82
		1971	0.19	0.29	0.	0.58	2.14	0.29	0.49	0.58	0.10	0.19	0.68	0.88	6.42
		1972	0.36	0.24	0.12	0.12	0.24	1.43	0.12	0.71	0.71	1.19	0.48	0.48	6.19
		1973	1.01	0.38	1.14	0.13	0.38	0.	0.38	1.26	0.13	0.63	0.50	1.39	7.32
		1974	1.03	0.31	0.10	0.31	0.51	0.	0.62	0.	0.	1.95	0.31	0.41	5.54
		1975	0.25	0.	1.77	0.	0.	0.38	0.25	0.51	1.01	1.52	0.	0.13	5.82
		1976	0.57	0.48	0.38	0.29	0.77	0.10	1.34	0.38	0.96	1.05	0.19	0.77	7.27
		1977	0.31	0.21	0.31	0.21	1.96	1.55	0.83	4.54	0.52	0.10	0.41	0.52	11.46
		1978	0.97	0.85	2.80	1.09	0.36	0.24	0.12	0.85	4.13	0.85	1.09	0.85	14.22
		1979	0.33	0.44	1.33	0.11	0.55	0.22	1.66	0.44	0.	0.22	0.11	0.22	5.66
		1980	0.56	0.84	0.46	0.19	3.16	0.	1.39	0.37	2.51	0.09	0.74	0.28	10.60
		MEAN	0.56	0.46	0.62	0.53	0.79	0.96	0.87	1.07	0.90	0.58	0.62	0.72	8.66

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
13	6050														
		1963	0.	0.39	0.10	0.58	0.29	2.99	0.	0.29	1.06	0.68	0.39	0.10	6.85
		1964	0.61	0.	0.24	1.94	1.09	2.06	0.	0.61	0.24	0.24	0.36	0.97	8.38
		1965	0.16	0.32	0.48	1.77	0.32	1.93	1.61	4.51	0.97	0.32	1.77	1.13	15.31
		1966	0.17	0.67	0.17	0.	0.67	0.33	0.83	0.50	1.00	0.	0.17	1.00	5.50
		1967	0.54	0.	0.22	1.30	1.19	1.62	1.51	0.65	1.62	0.	0.22	0.32	9.18
		1968	0.24	1.07	0.48	0.36	0.48	1.91	1.19	1.67	0.83	1.07	0.95	2.15	12.40
		1969	1.48	1.33	0.59	0.44	0.	1.48	1.18	1.33	0.	0.44	1.33	0.44	10.04
		1970	0.72	0.36	0.54	0.72	0.18	1.45	2.53	1.09	0.72	0.	1.99	1.27	11.58
		1971	0.27	0.41	0.	0.81	2.98	0.41	0.68	0.81	0.14	0.27	0.95	1.22	8.93
		1972	0.39	0.26	0.13	0.13	0.26	1.56	0.13	0.78	0.78	1.30	0.52	0.52	6.77
		1973	1.08	0.40	1.21	0.13	0.40	0.	0.40	1.35	0.13	0.67	0.54	1.48	7.82
		1974	1.07	0.32	0.11	0.32	0.53	0.	0.64	0.	0.	2.03	0.32	0.43	5.76
		1975	0.29	0.	2.00	0.	0.	0.43	0.29	0.57	1.14	1.71	0.	0.14	6.56
		1976	0.57	0.48	0.38	0.29	0.76	0.10	1.33	0.38	0.95	1.05	0.19	0.76	7.24
		1977	0.33	0.22	0.33	0.22	2.09	1.65	0.88	4.85	0.55	0.11	0.44	0.55	12.23
		1978	0.98	0.86	2.82	1.10	0.37	0.25	0.12	0.86	4.17	0.86	1.10	0.86	14.34
		1979	0.36	0.48	1.44	0.12	0.60	0.24	1.80	0.48	0.	0.24	0.12	0.24	6.13
		1980	0.56	0.85	0.47	0.19	3.19	0.	1.41	0.38	2.54	0.09	0.75	0.28	10.71
		MEAN	0.58	0.47	0.65	0.58	0.85	1.02	0.92	1.17	0.93	0.61	0.67	0.77	9.21

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
14	6250														
		1963	0.	0.44	0.11	0.66	0.33	3.41	0.	0.33	1.21	0.77	0.44	0.11	7.82
		1964	0.60	0.	0.24	1.92	1.08	2.04	0.	0.60	0.24	0.24	0.36	0.96	8.30
		1965	0.16	0.32	0.48	1.77	0.32	1.93	1.61	4.50	0.97	0.32	1.77	1.13	15.28
		1966	0.19	0.77	0.19	0.	0.77	0.38	0.96	0.58	1.15	0.	0.19	1.15	6.35
		1967	0.83	0.	0.33	2.00	1.84	2.50	2.34	1.00	2.50	0.	0.33	0.50	14.19
		1968	0.28	1.26	0.56	0.42	0.56	2.24	1.40	1.96	0.98	1.26	1.12	2.52	14.55
		1969	1.59	1.43	0.64	0.48	0.	1.59	1.27	1.43	0.	0.48	1.43	0.48	10.81
		1970	0.86	0.43	0.65	0.86	0.22	1.72	3.02	1.29	0.86	0.	2.37	1.51	13.79
		1971	0.20	0.31	0.	0.61	2.25	0.31	0.51	0.61	0.10	0.20	0.72	0.92	6.76
		1972	0.42	0.28	0.14	0.14	0.28	1.70	0.14	0.85	0.85	1.42	0.57	0.57	7.36
		1973	1.23	0.46	1.39	0.15	0.46	0.	0.46	1.54	0.15	0.77	0.62	1.70	8.94
		1974	1.10	0.33	0.11	0.33	0.55	0.	0.66	0.	0.	2.09	0.33	0.44	5.94
		1975	0.34	0.	2.40	0.	0.	0.51	0.34	0.68	1.37	2.05	0.	0.17	7.87
		1976	0.62	0.51	0.41	0.31	0.82	0.10	1.44	0.41	1.03	1.13	0.21	0.82	7.82
		1977	0.37	0.25	0.37	0.25	2.36	1.86	0.99	5.46	0.62	0.12	0.50	0.62	13.78
		1978	1.05	0.92	3.01	1.18	0.39	0.26	0.13	0.92	4.45	0.92	1.18	0.92	15.31
		1979	0.41	0.54	1.63	0.14	0.68	0.27	2.03	0.54	0.	0.27	0.14	0.27	6.91
		1980	0.56	0.84	0.47	0.19	3.18	0.	1.40	0.37	2.52	0.09	0.75	0.28	10.66
		MEAN	0.63	0.50	0.72	0.63	0.89	1.15	1.03	1.28	1.05	0.67	0.72	0.83	10.12

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
15	6440														
		1963	0.	0.49	0.12	0.73	0.37	3.79	0.	0.37	1.34	0.85	0.49	0.12	8.67
		1964	0.79	0.	0.32	2.53	1.42	2.68	0.	0.79	0.32	0.32	0.47	1.26	10.89
		1965	0.18	0.35	0.53	1.93	0.35	2.11	1.76	4.93	1.06	0.35	1.93	1.23	16.71
		1966	0.21	0.83	0.21	0.	0.83	0.41	1.03	0.62	1.24	0.	0.21	1.24	6.82
		1967	0.88	0.	0.35	2.10	1.93	2.63	2.45	1.05	2.63	0.	0.35	0.53	14.89
		1968	0.29	1.32	0.59	0.44	0.59	2.35	1.47	2.05	1.03	1.32	1.17	2.64	15.26
		1969	1.84	1.66	0.74	0.55	0.	1.84	1.48	1.66	0.	0.55	1.66	0.55	12.54
		1970	0.99	0.50	0.74	0.99	0.25	1.98	3.47	1.49	0.99	0.	2.73	1.74	15.87
		1971	0.26	0.39	0.	0.78	2.88	0.39	0.65	0.78	0.13	0.26	0.92	1.18	8.63
		1972	0.50	0.33	0.17	0.17	0.33	2.00	0.17	1.00	1.00	1.66	0.67	0.67	8.65
		1973	1.56	0.59	1.76	0.20	0.59	0.	0.59	1.95	0.20	0.98	0.78	2.15	11.33
		1974	1.30	0.39	0.13	0.39	0.65	0.	0.78	0.	0.	2.46	0.39	0.52	7.00
		1975	0.42	0.	2.91	0.	0.	0.62	0.42	0.83	1.66	2.49	0.	0.21	9.56
		1976	0.76	0.63	0.50	0.38	1.01	0.13	1.77	0.50	1.26	1.39	0.25	1.01	9.59
		1977	0.38	0.25	0.38	0.25	2.40	1.90	1.01	5.57	0.63	0.13	0.51	0.63	14.04
		1978	1.03	0.90	2.97	1.16	0.39	0.26	0.13	0.90	4.39	0.90	1.16	0.90	15.11
		MEAN	0.75	0.54	0.77	0.78	0.87	1.43	1.07	1.52	1.11	0.84	0.85	1.02	11.55

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
16	6675														
		1963	0.	0.49	0.12	0.74	0.37	3.82	0.	0.37	1.36	0.86	0.49	0.12	8.76
		1964	1.04	0.	0.42	3.33	1.87	3.53	0.	1.04	0.42	0.42	0.62	1.66	14.34
		1965	0.19	0.38	0.57	2.09	0.38	2.28	1.90	5.33	1.14	0.38	2.09	1.33	18.08
		1966	0.24	0.96	0.24	0.	0.96	0.48	1.20	0.72	1.44	0.	0.24	1.44	7.90
		1967	0.88	0.	0.35	2.12	1.94	2.65	2.47	1.06	2.65	0.	0.35	0.53	15.01
		1968	0.32	1.45	0.65	0.48	0.65	2.58	1.61	2.26	1.13	1.45	1.29	2.90	16.77
		1969	2.00	1.80	0.80	0.60	0.	2.00	1.60	1.80	0.	0.60	1.80	0.60	13.59
		1970	0.91	0.45	0.68	0.91	0.23	1.82	3.18	1.36	0.91	0.	2.50	1.59	14.53
		1971	0.32	0.47	0.	0.95	3.47	0.47	0.79	0.95	0.16	0.32	1.10	1.42	10.41
		1972	0.58	0.38	0.19	0.19	0.38	2.31	0.19	1.15	1.15	1.92	0.77	0.77	9.99
		1973	1.59	0.59	1.78	0.20	0.59	0.	0.59	1.98	0.20	0.99	0.79	2.18	11.50
		1974	1.25	0.38	0.13	0.38	0.63	0.	0.75	0.	0.	2.38	0.38	0.50	6.76
		1975	0.45	0.	3.12	0.	0.	0.67	0.45	0.89	1.78	2.67	0.	0.22	10.24
		1976	0.71	0.59	0.47	0.35	0.94	0.12	1.65	0.47	1.18	1.30	0.24	0.94	8.95
		1977	0.42	0.28	0.42	0.28	2.65	2.09	1.11	6.13	0.70	0.14	0.56	0.70	15.47
		1978	1.11	0.97	3.18	1.25	0.42	0.28	0.14	0.97	4.70	0.97	1.25	0.97	16.19
		1979	0.42	0.56	1.67	0.14	0.70	0.28	2.09	0.56	0.	0.28	0.14	0.28	7.09
		1980	0.66	0.99	0.55	0.22	3.76	0.	1.66	0.44	2.98	0.11	0.88	0.33	12.60
		MEAN	0.77	0.59	0.85	0.79	1.09	1.41	1.18	1.53	1.21	0.82	0.86	1.03	12.13

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
17	6500														
		1963	0.	0.34	0.08	0.51	0.25	2.62	0.	0.25	0.93	0.59	0.34	0.08	5.99
		1964	0.77	0.	0.31	2.47	1.39	2.63	0.	0.77	0.31	0.31	0.46	1.24	10.67
		1965	0.18	0.36	0.54	1.98	0.36	2.16	1.80	5.04	1.08	0.36	1.98	1.26	17.10
		1966	0.22	0.88	0.22	0.	0.88	0.44	1.10	0.66	1.32	0.	0.22	1.32	7.28
		1967	0.85	0.	0.34	2.04	1.87	2.55	2.38	1.02	2.55	0.	0.34	0.51	14.44
		1968	0.29	1.32	0.59	0.44	0.59	2.35	1.47	2.06	1.03	1.32	1.18	2.65	15.29
		1969	1.83	1.65	0.73	0.55	0.	1.83	1.46	1.65	0.	0.55	1.65	0.55	12.44
		1970	1.03	0.52	0.77	1.03	0.26	2.06	3.61	1.55	1.03	0.	2.83	1.80	16.48
		1971	0.27	0.41	0.	0.82	3.00	0.41	0.68	0.82	0.14	0.27	0.95	1.23	8.99
		1972	0.51	0.34	0.17	0.17	0.34	2.03	0.17	1.02	1.02	1.69	0.68	0.68	8.80
		1973	1.39	0.52	1.57	0.17	0.52	0.	0.52	1.74	0.17	0.87	0.70	1.92	10.10
		1974	1.13	0.34	0.11	0.34	0.56	0.	0.68	0.	0.	2.14	0.34	0.45	6.08
		1975	0.39	0.	2.71	0.	0.	0.58	0.39	0.78	1.55	2.33	0.	0.19	8.92
		1976	0.68	0.57	0.46	0.34	0.91	0.11	1.60	0.46	1.14	1.25	0.23	0.91	8.66
		1977	0.39	0.26	0.39	0.26	2.47	1.95	1.04	5.72	0.65	0.13	0.52	0.65	14.43
		1978	0.99	0.87	2.85	1.12	0.37	0.25	0.12	0.87	4.22	0.87	1.12	0.87	14.51
		MEAN	0.73	0.53	0.75	0.77	0.87	1.38	1.07	1.52	1.08	0.79	0.85	1.02	11.36

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
18	6370	1963	0.	0.29	0.07	0.44	0.22	2.25	0.	0.22	0.80	0.51	0.29	0.07	5.16
		1964	0.74	0.	0.30	2.37	1.33	2.52	0.	0.74	0.30	0.30	0.44	1.19	10.23
		1965	0.17	0.34	0.52	1.89	0.34	2.06	1.72	4.81	1.03	0.34	1.89	1.20	16.31
		1966	0.21	0.84	0.21	0.	0.84	0.42	1.05	0.63	1.25	0.	0.21	1.25	6.90
		1967	0.93	0.	0.37	2.23	2.04	2.79	2.60	1.12	2.79	0.	0.37	0.56	15.80
		1968	0.27	1.23	0.55	0.41	0.55	2.19	1.37	1.92	0.96	1.23	1.09	2.46	14.23
		1969	1.79	1.61	0.71	0.54	0.	1.79	1.43	1.61	0.	0.54	1.61	0.54	12.15
		1970	0.86	0.43	0.64	0.86	0.21	1.72	3.01	1.29	0.86	0.	2.36	1.50	13.74
		1971	0.23	0.35	0.	0.69	2.54	0.35	0.58	0.69	0.12	0.23	0.81	1.04	7.63
		1972	0.47	0.32	0.16	0.16	0.32	1.90	0.16	0.95	0.95	1.58	0.63	0.63	8.23
		1973	1.18	0.44	1.33	0.15	0.44	0.	0.44	1.48	0.15	0.74	0.59	1.63	8.58
		1974	1.06	0.32	0.11	0.32	0.53	0.	0.64	0.	0.	2.01	0.32	0.42	5.72
		1975	0.39	0.	2.75	0.	0.	0.59	0.39	0.79	1.57	2.36	0.	0.20	9.03
		1976	0.67	0.56	0.45	0.33	0.89	0.11	1.56	0.45	1.11	1.22	0.22	0.89	8.46
		1977	0.35	0.23	0.35	0.23	2.22	1.75	0.93	5.13	0.58	0.12	0.47	0.58	12.95
		1978	0.92	0.80	2.64	1.03	0.34	0.23	0.11	0.80	3.91	0.80	1.03	0.80	13.44
		1979	0.35	0.46	1.39	0.12	0.58	0.23	1.74	0.46	0.	0.23	0.12	0.23	5.91
		1980	0.62	0.93	0.52	0.21	3.52	0.	1.55	0.41	2.79	0.10	0.83	0.31	11.79
		MEAN	0.66	0.51	0.73	0.67	0.94	1.17	1.07	1.32	1.07	0.69	0.74	0.87	10.44

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
19	6215														
		1963	0.	0.28	0.07	0.42	0.21	2.17	0.	0.21	0.77	0.49	0.28	0.07	4.98
		1964	0.68	0.	0.27	2.18	1.23	2.32	0.	0.68	0.27	0.27	0.41	1.09	9.41
		1965	0.16	0.32	0.48	1.75	0.32	1.91	1.59	4.47	0.96	0.32	1.75	1.12	15.15
		1966	0.22	0.88	0.22	0.	0.88	0.44	1.10	0.66	1.32	0.	0.22	1.32	7.28
		1967	0.74	0.	0.30	1.78	1.63	2.23	2.08	0.89	2.23	0.	0.30	0.45	12.61
		1968	0.29	1.30	0.58	0.43	0.58	2.31	1.45	2.02	1.01	1.30	1.16	2.60	15.04
		1969	1.67	1.50	0.67	0.50	0.	1.67	1.33	1.50	0.	0.50	1.50	0.50	11.34
		1970	0.78	0.39	0.59	0.78	0.20	1.56	2.73	1.17	0.78	0.	2.15	1.37	12.48
		1971	0.21	0.32	0.	0.64	2.36	0.32	0.54	0.64	0.11	0.21	0.75	0.97	7.09
		1972	0.42	0.28	0.14	0.14	0.28	1.66	0.14	0.83	0.83	1.39	0.55	0.55	7.21
		1973	1.17	0.44	1.32	0.15	0.44	0.	0.44	1.47	0.15	0.73	0.59	1.61	8.50
		1974	1.10	0.33	0.11	0.33	0.55	0.	0.66	0.	0.	2.08	0.33	0.44	5.92
		1975	0.33	0.	2.31	0.	0.	0.50	0.33	0.66	1.32	1.98	0.	0.16	7.59
		1976	0.60	0.50	0.40	0.30	0.81	0.10	1.41	0.40	1.01	1.11	0.20	0.81	7.65
		1977	0.33	0.22	0.33	0.22	2.07	1.64	0.87	4.80	0.55	0.11	0.44	0.55	12.10
		1978	1.02	0.89	2.93	1.15	0.38	0.25	0.13	0.89	4.33	0.89	1.15	0.89	14.89
		1979	0.26	0.35	1.05	0.09	0.44	0.17	1.31	0.35	0.	0.17	0.09	0.17	4.45
		1980	0.59	0.89	0.50	0.20	3.37	0.	1.49	0.40	2.68	0.10	0.79	0.30	11.30
		MEAN	0.62	0.50	0.68	0.62	0.88	1.08	0.98	1.23	1.02	0.65	0.70	0.83	9.79

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
20	6320	1963	0.	0.51	0.13	0.77	0.38	3.97	0.	0.38	1.41	0.90	0.51	0.13	9.10
		1964	0.74	0.	0.30	2.37	1.33	2.52	0.	0.74	0.30	0.30	0.44	1.18	10.22
		1965	0.14	0.29	0.43	1.59	0.29	1.74	1.45	4.06	0.87	0.29	1.59	1.01	13.76
		1966	0.23	0.91	0.23	0.	0.91	0.45	1.13	0.68	1.36	0.	0.23	1.36	7.48
		1967	0.76	0.	0.30	1.81	1.66	2.27	2.12	0.91	2.27	0.	0.30	0.45	12.85
		1968	0.27	1.21	0.54	0.40	0.54	2.15	1.35	1.88	0.94	1.21	1.08	2.42	13.99
		1969	1.71	1.54	0.68	0.51	0.	1.71	1.36	1.54	0.	0.51	1.54	0.51	11.60
		1970	0.87	0.44	0.65	0.87	0.22	1.74	3.05	1.31	0.87	0.	2.39	1.52	13.93
		1971	0.23	0.34	0.	0.68	2.49	0.34	0.57	0.68	0.11	0.23	0.79	1.02	7.47
		1972	0.50	0.34	0.17	0.17	0.34	2.02	0.17	1.01	1.01	1.68	0.67	0.67	8.74
		1973	1.26	0.47	1.42	0.16	0.47	0.	0.47	1.58	0.16	0.79	0.63	1.74	9.15
		1974	1.18	0.35	0.12	0.35	0.59	0.	0.71	0.	0.	2.23	0.35	0.47	6.35
		1975	0.34	0.	2.39	0.	0.	0.51	0.34	0.68	1.37	2.05	0.	0.17	7.86
		1976	0.68	0.57	0.46	0.34	0.91	0.11	1.60	0.46	1.14	1.25	0.23	0.91	8.66
		1977	0.36	0.24	0.36	0.24	2.26	1.78	0.95	5.22	0.59	0.12	0.47	0.59	13.18
		1978	0.97	0.85	2.79	1.09	0.36	0.24	0.12	0.85	4.13	0.85	1.09	0.85	14.20
		1979	0.27	0.36	1.07	0.09	0.44	0.18	1.33	0.36	0.	0.18	0.09	0.18	4.53
		1980	0.63	0.95	0.53	0.21	3.58	0.	1.58	0.42	2.84	0.11	0.84	0.32	12.01
		MEAN	0.65	0.52	0.70	0.65	0.93	1.20	1.01	1.26	1.07	0.70	0.74	0.86	10.29

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
21	6375														
		1963	0.	0.51	0.13	0.77	0.39	3.99	0.	0.39	1.42	0.90	0.51	0.13	9.14
		1964	0.88	0.	0.35	2.83	1.59	3.00	0.	0.88	0.35	0.35	0.53	1.41	12.19
		1965	0.16	0.31	0.47	1.71	0.31	1.87	1.56	4.37	0.94	0.31	1.71	1.09	14.81
		1966	0.25	1.00	0.25	0.	1.00	0.50	1.25	0.75	1.50	0.	0.25	1.50	8.23
		1967	0.90	0.	0.36	2.15	1.97	2.69	2.51	1.08	2.69	0.	0.36	0.54	15.24
		1968	0.25	1.12	0.50	0.37	0.50	1.99	1.25	1.74	0.87	1.12	1.00	2.24	12.96
		1969	1.78	1.60	0.71	0.53	0.	1.78	1.42	1.60	0.	0.53	1.60	0.53	12.08
		1970	0.79	0.39	0.59	0.79	0.20	1.58	2.76	1.18	0.79	0.	2.17	1.38	12.60
		1971	0.24	0.36	0.	0.72	2.63	0.36	0.60	0.72	0.12	0.24	0.84	1.08	7.90
		1972	0.43	0.29	0.14	0.14	0.29	1.73	0.14	0.86	0.86	1.44	0.58	0.58	7.48
		1973	1.13	0.42	1.27	0.14	0.42	0.	0.42	1.41	0.14	0.71	0.56	1.55	8.19
		1974	1.15	0.34	0.11	0.34	0.57	0.	0.69	0.	0.	2.18	0.34	0.46	6.19
		1975	0.35	0.	2.42	0.	0.	0.52	0.35	0.69	1.38	2.07	0.	0.17	7.95
		1976	0.62	0.52	0.42	0.31	0.83	0.10	1.46	0.42	1.04	1.14	0.21	0.83	7.90
		1977	0.35	0.24	0.35	0.24	2.24	1.77	0.94	5.18	0.59	0.12	0.47	0.59	13.08
		1978	1.00	0.87	2.87	1.12	0.37	0.25	0.12	0.87	4.25	0.87	1.12	0.87	14.62
		MEAN	0.68	0.50	0.69	0.75	0.84	1.37	0.97	1.38	1.06	0.75	0.76	0.93	10.68

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
22	6060														
		1963	0.	0.48	0.12	0.72	0.36	3.72	0.	0.36	1.32	0.84	0.48	0.12	8.53
		1964	0.72	0.	0.29	2.31	1.30	2.46	0.	0.72	0.29	0.29	0.43	1.16	9.98
		1965	0.14	0.27	0.41	1.51	0.27	1.65	1.37	3.85	0.82	0.27	1.51	0.96	13.06
		1966	0.25	0.99	0.25	0.	0.99	0.50	1.24	0.74	1.49	0.	0.25	1.49	8.19
		1967	0.63	0.	0.25	1.51	1.38	1.89	1.76	0.75	1.89	0.	0.25	0.38	10.69
		1968	0.22	0.99	0.44	0.33	0.44	1.76	1.10	1.54	0.77	0.99	0.88	1.98	11.42
		1969	1.91	1.72	0.77	0.57	0.	1.91	1.53	1.72	0.	0.57	1.72	0.57	13.01
		1970	0.81	0.41	0.61	0.81	0.20	1.63	2.85	1.22	0.81	0.	2.24	1.43	13.04
		1971	0.22	0.33	0.	0.66	2.42	0.33	0.55	0.66	0.11	0.22	0.77	0.99	7.26
		1972	0.51	0.34	0.17	0.17	0.34	2.02	0.17	1.01	1.01	1.69	0.67	0.67	8.77
		1973	1.22	0.46	1.38	0.15	0.46	0.	0.46	1.53	0.15	0.76	0.61	1.68	8.87
		1974	1.17	0.35	0.12	0.35	0.59	0.	0.70	0.	0.	2.22	0.35	0.47	6.32
		1975	0.36	0.	2.52	0.	0.	0.54	0.36	0.72	1.44	2.16	0.	0.18	8.27
		1976	0.65	0.54	0.43	0.32	0.87	0.11	1.52	0.43	1.08	1.19	0.22	0.87	8.23
		1977	0.36	0.24	0.36	0.24	2.26	1.79	0.95	5.24	0.60	0.12	0.48	0.60	13.23
		1978	0.99	0.86	2.84	1.11	0.37	0.25	0.12	0.86	4.20	0.86	1.11	0.86	14.44
		MEAN	0.68	0.50	0.68	0.68	0.77	1.29	0.92	1.34	1.00	0.76	0.75	0.90	10.27

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
23	6270														
		1963	0.	0.51	0.13	0.76	0.38	3.92	0.	0.38	1.39	0.89	0.51	0.13	8.98
		1964	0.77	0.	0.31	2.48	1.39	2.63	0.	0.77	0.31	0.31	0.46	1.24	10.68
		1965	0.15	0.30	0.44	1.63	0.30	1.78	1.48	4.15	0.89	0.30	1.63	1.04	14.09
		1966	0.26	1.02	0.26	0.	1.02	0.51	1.28	0.77	1.54	0.	0.26	1.54	8.45
		1967	0.62	0.	0.25	1.48	1.36	1.85	1.73	0.74	1.85	0.	0.25	0.37	10.48
		1968	0.25	1.13	0.50	0.38	0.50	2.00	1.25	1.75	0.88	1.13	1.00	2.25	13.02
		1969	1.91	1.72	0.77	0.57	0.	1.91	1.53	1.72	0.	0.57	1.72	0.57	13.02
		1970	0.84	0.42	0.63	0.84	0.21	1.67	2.92	1.25	0.84	0.	2.30	1.46	13.36
		1971	0.25	0.37	0.	0.74	2.71	0.37	0.62	0.74	0.12	0.25	0.86	1.11	8.12
		1972	0.47	0.31	0.16	0.16	0.31	1.88	0.16	0.94	0.94	1.57	0.63	0.63	8.15
		1973	1.35	0.51	1.52	0.17	0.51	0.	0.51	1.69	0.17	0.84	0.68	1.86	9.80
		1974	1.21	0.36	0.12	0.36	0.61	0.	0.73	0.	0.	2.30	0.36	0.48	6.54
		1975	0.39	0.	2.74	0.	0.	0.59	0.39	0.78	1.57	2.35	0.	0.20	9.00
		1976	0.71	0.59	0.47	0.35	0.94	0.12	1.65	0.47	1.18	1.30	0.24	0.94	8.95
		1977	0.36	0.24	0.36	0.24	2.27	1.79	0.95	5.25	0.60	0.12	0.48	0.60	13.25
		1978	1.03	0.90	2.97	1.16	0.39	0.26	0.13	0.90	4.39	0.90	1.16	0.90	15.12
		1979	0.26	0.35	1.04	0.09	0.44	0.17	1.31	0.35	0.	0.17	0.09	0.17	4.44
		1980	0.70	1.05	0.58	0.23	3.95	0.	1.74	0.47	3.14	0.12	0.93	0.35	13.26
		MEAN	0.68	0.54	0.73	0.65	0.95	1.20	1.02	1.29	1.09	0.73	0.75	0.88	10.51

TABLE B-4-1; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; DUCKWATER

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
24	6090														
		1963	0.	0.46	0.12	0.69	0.35	3.58	0.	0.35	1.27	0.81	0.46	0.12	8.21
		1964	0.64	0.	0.26	2.05	1.15	2.18	0.	0.64	0.26	0.26	0.38	1.03	8.85
		1965	0.15	0.31	0.46	1.70	0.31	1.86	1.55	4.34	0.93	0.31	1.70	1.08	14.72
		1966	0.22	0.88	0.22	0.	0.88	0.44	1.11	0.66	1.33	0.	0.22	1.33	7.30
		1967	1.09	0.	0.44	2.62	2.40	3.28	3.06	1.31	3.28	0.	0.44	0.66	18.57
		1968	0.22	1.01	0.45	0.34	0.45	1.80	1.12	1.57	0.79	1.01	0.90	2.02	11.69
		1969	1.58	1.42	0.63	0.47	0.	1.58	1.26	1.42	0.	0.47	1.42	0.47	10.74
		1970	0.72	0.36	0.54	0.72	0.18	1.45	2.53	1.09	0.72	0.	1.99	1.27	11.58
		1971	0.20	0.31	0.	0.61	2.24	0.31	0.51	0.61	0.10	0.20	0.71	0.92	6.73
		1972	0.44	0.29	0.15	0.15	0.29	1.75	0.15	0.88	0.88	1.46	0.58	0.58	7.59
		1973	1.18	0.44	1.33	0.15	0.44	0.	0.44	1.48	0.15	0.74	0.59	1.62	8.56
		1974	1.14	0.34	0.11	0.34	0.57	0.	0.69	0.	0.	2.17	0.34	0.46	6.18
		1975	0.31	0.	2.14	0.	0.	0.46	0.31	0.61	1.22	1.83	0.	0.15	7.02
		1976	0.65	0.54	0.43	0.32	0.86	0.11	1.51	0.43	1.08	1.18	0.22	0.86	8.18
		1977	0.34	0.23	0.34	0.23	2.16	1.70	0.91	4.99	0.57	0.11	0.45	0.57	12.60
		1978	1.09	0.95	3.13	1.22	0.41	0.27	0.14	0.95	4.62	0.95	1.22	0.95	15.90
		1979	0.36	0.48	1.44	0.12	0.60	0.24	1.80	0.48	0.	0.24	0.12	0.24	6.13
		1980	0.59	0.88	0.49	0.20	3.33	0.	1.47	0.39	2.64	0.10	0.78	0.29	11.16
		MEAN	0.64	0.50	0.71	0.66	0.93	1.17	1.03	1.24	1.10	0.66	0.70	0.82	10.15

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
1	7200	1964	0.	0.	0.	0.	2.43	2.16	0.	1.08	0.	1.35	1.08	0.81	8.92
		1965	0.	0.	0.21	1.03	0.62	1.03	3.31	1.66	4.14	0.	4.35	0.62	16.97
		1966	0.22	0.34	0.22	0.	0.56	0.45	1.01	0.67	2.25	0.11	0.45	3.60	9.89
		1967	0.78	0.	0.31	2.03	1.09	7.18	1.40	0.78	3.59	0.	0.47	1.09	18.73
		1968	0.14	1.39	0.98	1.25	0.70	1.11	3.62	0.84	0.14	1.81	0.56	0.42	12.96
		1969	2.39	1.56	0.24	0.48	0.12	4.19	1.91	1.08	0.72	0.84	0.96	0.72	15.20
		1970	0.51	0.38	0.90	0.38	0.	2.95	3.85	2.31	0.26	0.13	1.54	1.03	14.23
		1971	0.20	0.99	0.30	2.57	1.68	0.	0.49	1.29	0.20	0.59	0.49	1.98	10.79
		1972	0.12	0.	0.	0.74	0.50	2.48	0.12	1.99	2.11	2.73	0.62	0.12	11.54
		1973	0.96	0.48	1.93	0.96	0.32	0.80	1.28	0.48	0.	0.64	1.45	0.96	10.28
		1974	0.69	0.	0.69	0.42	0.28	0.14	1.11	0.	0.	4.16	0.83	0.28	8.60
		1975	0.78	0.26	1.57	0.26	0.78	0.52	2.88	2.35	2.09	1.83	0.52	0.78	14.64
		1976	0.12	1.69	0.24	0.	1.45	0.	1.94	0.24	4.35	2.42	0.24	0.	12.70
		1977	0.30	0.15	0.75	0.	3.47	1.06	0.60	3.02	0.75	0.	0.15	1.36	11.61
		1978	0.84	1.15	2.20	2.09	0.21	0.	0.31	0.52	1.99	1.15	1.88	0.42	12.77
		1979	0.55	0.92	1.01	0.92	0.83	0.18	0.92	1.10	0.	1.56	0.18	0.	8.16
		1980	1.26	2.68	1.10	0.47	1.50	0.63	0.55	0.79	0.47	0.79	0.87	0.95	12.05
		MEAN	0.62	0.75	0.79	0.85	0.97	1.46	1.49	1.19	1.36	1.18	0.98	0.89	12.53

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
2	7400	1964	0.	0.	0.	0.	1.89	1.55	0.34	1.89	0.	0.69	1.03	1.89	9.28
		1965	0.27	0.67	1.20	0.80	0.53	0.93	2.93	2.80	1.60	0.27	3.06	0.80	15.85
		1966	0.43	0.28	0.28	0.14	0.57	0.43	0.85	1.14	3.27	0.43	0.57	3.70	12.09
		1967	0.43	0.28	0.14	2.13	1.28	7.23	1.28	1.13	3.97	0.	0.57	0.71	19.14
		1968	0.34	1.24	0.68	1.24	0.79	1.36	2.60	1.13	0.23	2.03	0.34	0.23	12.20
		1969	2.79	0.89	0.38	0.63	0.25	3.80	2.66	0.76	1.14	1.01	0.89	0.76	15.96
		1970	0.86	0.25	0.12	0.37	0.	2.46	3.08	2.96	0.37	0.12	1.23	0.74	12.57
		1971	0.28	0.14	0.36	2.14	1.49	0.	0.43	1.28	0.28	1.92	0.36	1.07	9.75
		1972	0.39	0.	0.	1.16	0.65	2.58	0.	2.19	2.58	2.97	0.65	0.39	13.55
		1973	1.66	0.33	2.32	0.	0.	0.83	1.49	0.83	0.	1.16	0.99	0.66	10.28
		1974	0.76	0.	0.51	0.25	0.38	0.	0.89	0.13	0.25	4.70	0.89	0.38	9.15
		1975	0.77	0.62	2.16	0.46	0.31	0.15	2.78	1.54	1.54	1.39	0.62	0.46	12.82
		1976	0.13	0.92	0.39	0.79	1.45	0.26	2.63	0.39	4.08	2.63	0.13	0.39	14.21
		1977	0.57	0.	0.28	0.14	3.68	1.13	1.27	2.27	1.13	0.71	0.	0.14	11.33
		1978	0.84	1.01	3.11	2.94	0.34	0.	0.42	1.01	1.68	0.84	0.76	0.42	13.35
		1979	0.29	0.88	1.25	1.03	0.96	0.22	0.96	1.03	0.	1.03	0.22	0.	7.87
		1980	1.21	2.57	1.14	0.64	1.71	0.71	0.64	0.86	0.57	0.86	0.93	1.00	12.83
		MEAN	0.74	0.64	0.89	0.92	0.96	1.40	1.49	1.36	1.34	1.33	0.79	0.81	12.66

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
3	7400														
		1964	0.	0.	0.	0.	2.20	1.80	0.40	2.20	0.	0.80	1.20	2.20	10.78
		1965	0.28	0.69	1.24	0.83	0.55	0.96	3.03	2.89	1.65	0.28	3.17	0.83	16.39
		1966	0.41	0.28	0.28	0.14	0.55	0.41	0.83	1.10	3.17	0.41	0.55	3.59	11.73
		1967	0.33	0.22	0.11	1.65	0.99	5.60	0.99	0.88	3.07	0.	0.44	0.55	14.82
		1968	0.36	1.32	0.72	1.32	0.84	1.44	2.75	1.20	0.24	2.15	0.36	0.24	12.92
		1969	2.94	0.94	0.40	0.67	0.27	4.01	2.81	0.80	1.20	1.07	0.94	0.80	16.86
		1970	0.86	0.25	0.12	0.37	0.	2.46	3.07	2.95	0.37	0.12	1.23	0.74	12.54
		1971	0.37	0.19	0.47	2.80	1.96	0.	0.56	1.68	0.37	2.52	0.47	1.40	12.77
		1972	0.37	0.	0.	1.12	0.62	2.50	0.	2.12	2.50	2.87	0.62	0.37	13.11
		1973	1.57	0.31	2.20	0.	0.	0.79	1.41	0.79	0.	1.10	0.94	0.63	9.74
		1974	0.76	0.	0.50	0.25	0.38	0.	0.88	0.13	0.25	4.66	0.88	0.38	9.07
		1975	0.78	0.62	2.17	0.47	0.31	0.16	2.79	1.55	1.55	1.40	0.62	0.47	12.88
		1976	0.14	0.96	0.41	0.83	1.52	0.28	2.76	0.41	4.27	2.76	0.14	0.41	14.88
		1977	0.61	0.	0.30	0.15	3.96	1.22	1.37	2.44	1.22	0.76	0.	0.15	12.18
		1978	0.86	1.03	3.17	3.00	0.34	0.	0.43	1.03	1.71	0.86	0.77	0.43	13.63
		1979	0.37	1.12	1.59	1.31	1.21	0.28	1.21	1.31	0.	1.31	0.28	0.	9.98
		1980	1.23	2.61	1.16	0.65	1.74	0.73	0.65	0.87	0.58	0.87	0.94	1.02	13.06
		MEAN	0.76	0.66	0.93	0.97	1.02	1.33	1.52	1.43	1.31	1.40	0.80	0.83	12.96

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
4	7750	1964	0.	0.	0.	0.	2.10	1.72	0.38	2.10	0.	0.77	1.15	2.10	10.33
		1965	0.32	0.81	1.46	0.97	0.65	1.13	3.56	3.40	1.94	0.32	3.73	0.97	19.28
		1966	0.45	0.30	0.30	0.15	0.60	0.45	0.91	1.21	3.47	0.45	0.60	3.92	12.83
		1967	0.42	0.28	0.14	2.08	1.25	7.08	1.25	1.11	3.89	0.	0.56	0.69	18.74
		1968	0.36	1.34	0.73	1.34	0.85	1.46	2.80	1.22	0.24	2.19	0.36	0.24	13.14
		1969	2.93	0.93	0.40	0.67	0.27	3.99	2.79	0.80	1.20	1.06	0.93	0.80	16.77
		1970	1.00	0.29	0.14	0.43	0.	2.85	3.57	3.42	0.43	0.14	1.43	0.86	14.55
		1971	0.34	0.17	0.43	2.56	1.79	0.	0.51	1.53	0.34	2.30	0.43	1.28	11.68
		1972	0.37	0.	0.	1.11	0.61	2.46	0.	2.09	2.46	2.83	0.61	0.37	12.90
		1973	1.43	0.29	2.00	0.	0.	0.71	1.28	0.71	0.	1.00	0.86	0.57	8.85
		1974	0.80	0.	0.54	0.27	0.40	0.	0.94	0.13	0.27	4.96	0.94	0.40	9.65
		1975	0.76	0.61	2.12	0.45	0.30	0.15	2.73	1.52	1.52	1.36	0.61	0.45	12.58
		1976	0.15	1.03	0.44	0.88	1.62	0.29	2.94	0.44	4.56	2.94	0.15	0.44	15.88
		1977	0.62	0.	0.31	0.15	4.03	1.24	1.39	2.48	1.24	0.77	0.	0.15	12.40
		1978	0.93	1.11	3.43	3.25	0.37	0.	0.46	1.11	1.86	0.93	0.83	0.46	14.75
		1979	0.33	0.99	1.40	1.16	1.07	0.25	1.07	1.16	0.	1.16	0.25	0.	8.84
		1980	1.23	2.61	1.16	0.65	1.74	0.73	0.65	0.87	0.58	0.87	0.94	1.02	13.07
		MEAN	0.78	0.67	0.94	1.01	1.04	1.44	1.60	1.49	1.41	1.41	0.84	0.87	13.48

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
5	7600														
		1964	0.	0.	0.	0.	2.11	1.72	0.38	2.11	0.	0.77	1.15	2.11	10.35
		1965	0.27	0.68	1.23	0.82	0.55	0.96	3.01	2.88	1.64	0.27	3.15	0.82	16.30
		1966	0.37	0.24	0.24	0.12	0.49	0.37	0.73	0.97	2.80	0.37	0.49	3.17	10.35
		1967	0.40	0.27	0.13	2.01	1.21	6.85	1.21	1.07	3.76	0.	0.54	0.67	18.12
		1968	0.33	1.22	0.66	1.22	0.77	1.33	2.54	1.11	0.22	1.99	0.33	0.22	11.95
		1969	2.86	0.91	0.39	0.65	0.26	3.90	2.73	0.78	1.17	1.04	0.91	0.78	16.36
		1970	0.96	0.27	0.14	0.41	0.	2.74	3.42	3.28	0.41	0.14	1.37	0.82	13.96
		1971	0.34	0.17	0.42	2.52	1.76	0.	0.50	1.51	0.34	2.27	0.42	1.26	11.50
		1972	0.35	0.	0.	1.04	0.58	2.31	0.	1.96	2.31	2.66	0.58	0.35	12.13
		1973	1.57	0.31	2.19	0.	0.	0.78	1.41	0.78	0.	1.10	0.94	0.63	9.71
		1974	0.70	0.	0.47	0.23	0.35	0.	0.82	0.12	0.23	4.31	0.82	0.35	8.39
		1975	0.84	0.67	2.34	0.50	0.33	0.17	3.01	1.67	1.67	1.51	0.67	0.50	13.89
		1976	0.12	0.82	0.35	0.70	1.29	0.23	2.34	0.35	3.63	2.34	0.12	0.35	12.63
		1977	0.59	0.	0.30	0.15	3.84	1.18	1.33	2.37	1.18	0.74	0.	0.15	11.83
		1978	0.82	0.99	3.05	2.88	0.33	0.	0.41	0.99	1.65	0.82	0.74	0.41	13.09
		1979	0.35	1.04	1.47	1.21	1.13	0.26	1.13	1.21	0.	1.21	0.26	0.	9.26
		MEAN	0.73	0.52	0.90	0.97	0.94	1.43	1.56	1.45	1.32	1.35	0.78	0.79	12.73

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
6	7400	1964	0.	0.	0.	0.	2.14	1.75	0.39	2.14	0.	0.78	1.17	2.14	10.51
		1965	0.25	0.63	1.13	0.75	0.50	0.88	2.75	2.63	1.50	0.25	2.88	0.75	14.89
		1966	0.38	0.26	0.26	0.13	0.51	0.38	0.77	1.02	2.94	0.38	0.51	3.32	10.85
		1967	0.40	0.27	0.13	2.00	1.20	6.79	1.20	1.07	3.73	0.	0.53	0.67	17.98
		1968	0.35	1.28	0.70	1.28	0.81	1.40	2.68	1.16	0.23	2.09	0.35	0.23	12.57
		1969	2.83	0.90	0.39	0.64	0.26	3.86	2.70	0.77	1.16	1.03	0.90	0.77	16.21
		1970	1.00	0.28	0.14	0.43	0.	2.85	3.56	3.41	0.43	0.14	1.42	0.85	14.51
		1971	0.35	0.17	0.44	2.62	1.83	0.	0.52	1.57	0.35	2.36	0.44	1.31	11.96
		1972	0.38	0.	0.	1.14	0.63	2.53	0.	2.15	2.53	2.91	0.63	0.38	13.30
		1973	1.41	0.28	1.98	0.	0.	0.71	1.27	0.71	0.	0.99	0.85	0.56	8.75
		1974	0.67	0.	0.45	0.22	0.34	0.	0.78	0.11	0.22	4.15	0.78	0.34	8.07
		1975	0.87	0.69	2.43	0.52	0.35	0.17	3.12	1.73	1.73	1.56	0.69	0.52	14.40
		1976	0.12	0.83	0.36	0.71	1.30	0.24	2.37	0.36	3.67	2.37	0.12	0.36	12.78
		1977	0.57	0.	0.28	0.14	3.69	1.13	1.28	2.27	1.13	0.71	0.	0.14	11.34
		1978	0.89	1.07	3.29	3.11	0.36	0.	0.44	1.07	1.78	0.89	0.80	0.44	14.14
		1979	0.34	1.03	1.46	1.21	1.12	0.26	1.12	1.21	0.	1.21	0.26	0.	9.22
		1980	1.22	2.58	1.15	0.64	1.72	0.72	0.64	0.86	0.57	0.86	0.93	1.00	12.90
		MEAN	0.75	0.63	0.91	0.97	0.98	1.39	1.51	1.43	1.29	1.33	0.78	0.81	12.80

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
7	8000														
		1964	0.	0.	0.	0.	1.81	1.48	0.33	1.81	0.	0.66	0.99	1.81	8.88
		1965	0.24	0.60	1.07	0.72	0.48	0.84	2.63	2.51	1.43	0.24	2.75	0.72	14.21
		1966	0.46	0.30	0.30	0.15	0.61	0.46	0.91	1.22	3.50	0.46	0.61	3.95	12.92
		1967	0.38	0.26	0.13	1.92	1.15	6.52	1.15	1.02	3.58	0.	0.51	0.64	17.25
		1968	0.31	1.14	0.62	1.14	0.73	1.24	2.39	1.04	0.21	1.87	0.31	0.21	11.20
		1969	2.87	0.91	0.39	0.65	0.26	3.92	2.74	0.78	1.18	1.05	0.91	0.78	16.46
		1970	1.09	0.31	0.16	0.47	0.	3.13	3.91	3.75	0.47	0.16	1.56	0.94	15.94
		1971	0.35	0.17	0.43	2.59	1.81	0.	0.52	1.56	0.35	2.33	0.43	1.30	11.84
		1972	0.34	0.	0.	1.03	0.57	2.29	0.	1.94	2.29	2.63	0.57	0.34	12.01
		1973	1.40	0.28	1.95	0.	0.	0.70	1.26	0.70	0.	0.98	0.84	0.56	8.65
		1974	0.67	0.	0.45	0.22	0.33	0.	0.78	0.11	0.22	4.13	0.78	0.33	8.04
		1975	0.78	0.63	2.19	0.47	0.31	0.16	2.81	1.56	1.56	1.41	0.63	0.47	12.98
		1976	0.11	0.75	0.32	0.64	1.18	0.21	2.14	0.32	3.31	2.14	0.11	0.32	11.54
		1977	0.62	0.	0.31	0.16	4.05	1.25	1.40	2.49	1.25	0.78	0.	0.16	12.46
		1978	0.90	1.08	3.34	3.16	0.36	0.	0.45	1.08	1.81	0.90	0.81	0.45	14.35
		1979	0.34	1.01	1.44	1.18	1.10	0.25	1.10	1.18	0.	1.18	0.25	0.	9.05
		MEAN	0.73	0.51	0.88	0.97	0.93	1.40	1.53	1.44	1.32	1.31	0.76	0.81	12.57

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
8	7400														
		1964	0.	0.	0.	0.	2.01	1.64	0.37	2.01	0.	0.73	1.10	2.01	9.87
		1965	0.25	0.64	1.14	0.76	0.51	0.89	2.80	2.67	1.53	0.25	2.92	0.76	15.13
		1966	0.39	0.26	0.26	0.13	0.52	0.39	0.78	1.04	3.00	0.39	0.52	3.40	11.10
		1967	0.39	0.26	0.13	1.93	1.16	6.57	1.16	1.03	3.60	0.	0.51	0.64	17.38
		1968	0.31	1.13	0.62	1.13	0.72	1.23	2.36	1.03	0.21	1.85	0.31	0.21	11.10
		1969	2.74	0.87	0.37	0.62	0.25	3.73	2.61	0.75	1.12	0.99	0.87	0.75	15.67
		1970	1.03	0.29	0.15	0.44	0.	2.95	3.68	3.54	0.44	0.15	1.47	0.88	15.03
		1971	0.33	0.17	0.41	2.48	1.74	0.	0.50	1.49	0.33	2.23	0.41	1.24	11.34
		1972	0.32	0.	0.	0.96	0.53	2.14	0.	1.82	2.14	2.46	0.53	0.32	11.23
		1973	1.39	0.28	1.94	0.	0.	0.69	1.25	0.69	0.	0.97	0.83	0.55	8.59
		1974	0.75	0.	0.50	0.25	0.38	0.	0.88	0.13	0.25	4.66	0.88	0.38	9.06
		1975	0.77	0.62	2.16	0.46	0.31	0.15	2.78	1.54	1.54	1.39	0.62	0.46	12.80
		1976	0.13	0.92	0.39	0.79	1.45	0.26	2.63	0.39	4.08	2.63	0.13	0.39	14.20
		1977	0.59	0.	0.29	0.15	3.81	1.17	1.32	2.34	1.17	0.73	0.	0.15	11.72
		1978	0.87	1.05	3.23	3.05	0.35	0.	0.44	1.05	1.74	0.87	0.79	0.44	13.87
		1979	0.29	0.88	1.25	1.03	0.96	0.22	0.96	1.03	0.	1.03	0.22	0.	7.89
		1980	1.22	2.58	1.15	0.65	1.72	0.72	0.65	0.86	0.57	0.86	0.93	1.00	12.91
		MEAN	0.74	0.61	0.88	0.93	0.96	1.34	1.48	1.38	1.28	1.31	0.77	0.80	12.48

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
9	7700	1964	0.	0.	0.	0.	2.01	1.65	0.37	2.01	0.	0.73	1.10	2.01	9.88
		1965	0.28	0.70	1.26	0.84	0.56	0.98	3.09	2.95	1.68	0.28	3.23	0.84	16.70
		1966	0.41	0.27	0.27	0.14	0.54	0.41	0.81	1.08	3.11	0.41	0.54	3.51	11.49
		1967	0.39	0.26	0.13	1.97	1.18	6.69	1.18	1.05	3.68	0.	0.53	0.66	17.72
		1968	0.29	1.07	0.58	1.07	0.68	1.16	2.23	0.97	0.19	1.75	0.29	0.19	10.47
		1969	2.85	0.91	0.39	0.65	0.26	3.89	2.72	0.78	1.17	1.04	0.91	0.78	16.32
		1970	1.14	0.32	0.16	0.49	0.	3.25	4.06	3.90	0.49	0.16	1.62	0.97	16.57
		1971	0.34	0.17	0.43	2.59	1.81	0.	0.52	1.55	0.34	2.33	0.43	1.29	11.81
		1972	0.37	0.	0.	1.11	0.61	2.46	0.	2.09	2.46	2.83	0.61	0.37	12.91
		1973	1.60	0.32	2.24	0.	0.	0.80	1.44	0.80	0.	1.12	0.96	0.64	9.92
		1974	0.81	0.	0.54	0.27	0.40	0.	0.94	0.13	0.27	4.98	0.94	0.40	9.69
		1975	0.75	0.60	2.09	0.45	0.30	0.15	2.69	1.49	1.49	1.34	0.60	0.45	12.40
		1976	0.12	0.84	0.36	0.72	1.32	0.24	2.39	0.36	3.71	2.39	0.12	0.36	12.92
		1977	0.68	0.	0.34	0.17	4.41	1.36	1.53	2.71	1.36	0.85	0.	0.17	13.56
		1978	0.82	0.99	3.05	2.88	0.33	0.	0.41	0.99	1.65	0.82	0.74	0.41	13.10
		1979	0.30	0.91	1.29	1.06	0.98	0.23	0.98	1.06	0.	1.06	0.23	0.	8.09
		1980	1.26	2.66	1.18	0.67	1.77	0.74	0.67	0.89	0.59	0.89	0.96	1.04	13.31
		MEAN	0.77	0.63	0.89	0.94	1.01	1.41	1.53	1.46	1.30	1.35	0.81	0.83	12.92

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
10	7900	1964	0.	0.	0.	0.	1.99	1.63	0.36	1.99	0.	0.72	1.09	1.99	9.78
		1965	0.30	0.74	1.34	0.89	0.60	1.04	3.28	3.13	1.79	0.30	3.43	0.89	17.73
		1966	0.47	0.31	0.31	0.16	0.63	0.47	0.94	1.26	3.61	0.47	0.63	4.08	13.35
		1967	0.38	0.25	0.13	1.91	1.14	6.49	1.14	1.02	3.56	0.	0.51	0.64	17.17
		1968	0.37	1.36	0.74	1.36	0.87	1.49	2.85	1.24	0.25	2.23	0.37	0.25	13.38
		1969	3.10	0.99	0.42	0.70	0.28	4.22	2.96	0.84	1.27	1.13	0.99	0.84	17.74
		1970	1.25	0.36	0.18	0.53	0.	3.56	4.45	4.27	0.53	0.18	1.78	1.07	18.16
		1971	0.42	0.21	0.53	3.17	2.22	0.	0.63	1.90	0.42	2.85	0.53	1.58	14.46
		1972	0.40	0.	0.	1.19	0.66	2.64	0.	2.24	2.64	3.03	0.66	0.40	13.84
		1973	1.82	0.36	2.54	0.	0.	0.91	1.64	0.91	0.	1.27	1.09	0.73	11.27
		1974	0.84	0.	0.56	0.28	0.42	0.	0.98	0.14	0.28	5.19	0.98	0.42	10.09
		1975	0.82	0.66	2.30	0.49	0.33	0.16	2.95	1.64	1.64	1.48	0.66	0.49	13.61
		1976	0.14	0.95	0.41	0.82	1.50	0.27	2.72	0.41	4.21	2.72	0.14	0.41	14.68
		1977	0.62	0.	0.31	0.16	4.03	1.24	1.40	2.48	1.24	0.78	0.	0.16	12.41
		1978	0.81	0.97	3.00	2.84	0.32	0.	0.41	0.97	1.62	0.81	0.73	0.41	12.88
		1979	0.27	0.80	1.13	0.93	0.87	0.20	0.87	0.93	0.	0.93	0.20	0.	7.12
		1980	1.29	2.73	1.22	0.68	1.82	0.76	0.68	0.91	0.61	0.91	0.99	1.06	13.67
		MEAN	0.83	0.67	0.94	1.00	1.04	1.47	1.65	1.54	1.39	1.46	0.86	0.90	13.76

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
11	8000														
		1964	0.	0.	0.	0.	1.99	1.63	0.36	1.99	0.	0.72	1.08	1.99	9.76
		1965	0.29	0.72	1.29	0.86	0.57	1.00	3.15	3.00	1.72	0.29	3.29	0.86	17.02
		1966	0.43	0.29	0.29	0.14	0.58	0.43	0.87	1.15	3.32	0.43	0.58	3.75	12.27
		1967	0.38	0.26	0.13	1.92	1.15	6.52	1.15	1.02	3.58	0.	0.51	0.64	17.27
		1968	0.35	1.27	0.69	1.27	0.81	1.39	2.66	1.15	0.23	2.08	0.35	0.23	12.47
		1969	3.22	1.03	0.44	0.73	0.29	4.40	3.08	0.88	1.32	1.17	1.03	0.88	18.47
		1970	1.26	0.36	0.18	0.54	0.	3.59	4.49	4.31	0.54	0.18	1.80	1.08	18.33
		1971	0.39	0.20	0.49	2.96	2.07	0.	0.59	1.78	0.39	2.66	0.49	1.48	13.51
		1972	0.39	0.	0.	1.16	0.64	2.58	0.	2.19	2.58	2.96	0.64	0.39	13.52
		1973	1.62	0.32	2.27	0.	0.	0.81	1.46	0.81	0.	1.14	0.97	0.65	10.06
		1974	0.84	0.	0.56	0.28	0.42	0.	0.98	0.14	0.28	5.20	0.98	0.42	10.11
		1975	0.78	0.62	2.18	0.47	0.31	0.16	2.81	1.56	1.56	1.40	0.62	0.47	12.94
		1976	0.12	0.87	0.37	0.75	1.37	0.25	2.50	0.37	3.87	2.50	0.12	0.37	13.49
		1977	0.70	0.	0.35	0.18	4.57	1.41	1.58	2.81	1.41	0.88	0.	0.18	14.06
		1978	0.84	1.00	3.09	2.93	0.33	0.	0.42	1.00	1.67	0.84	0.75	0.42	13.29
		1979	0.31	0.93	1.32	1.09	1.01	0.23	1.01	1.09	0.	1.09	0.23	0.	8.30
		1980	1.23	2.61	1.16	0.65	1.74	0.72	0.65	0.87	0.58	0.87	0.94	1.01	13.04
		MEAN	0.82	0.66	0.93	1.00	1.05	1.48	1.63	1.54	1.36	1.44	0.85	0.87	13.62

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
12	7900	1964	0.	0.	0.	0.	2.04	1.67	0.37	2.04	0.	0.74	1.11	2.04	10.02
		1965	0.29	0.74	1.33	0.88	0.59	1.03	3.24	3.09	1.77	0.29	3.39	0.88	17.53
		1966	0.36	0.24	0.24	0.12	0.48	0.36	0.72	0.96	2.76	0.36	0.48	3.12	10.21
		1967	0.39	0.26	0.13	1.97	1.18	6.71	1.18	1.05	3.68	0.	0.53	0.66	17.75
		1968	0.33	1.23	0.67	1.23	0.78	1.34	2.56	1.11	0.22	2.01	0.33	0.22	12.04
		1969	3.24	1.03	0.44	0.74	0.29	4.41	3.09	0.88	1.32	1.18	1.03	0.88	18.54
		1970	1.00	0.29	0.14	0.43	0.	2.86	3.58	3.44	0.43	0.14	1.43	0.86	14.61
		1971	0.38	0.19	0.47	2.82	1.97	0.	0.56	1.69	0.38	2.54	0.47	1.41	12.88
		1972	0.38	0.	0.	1.13	0.63	2.50	0.	2.13	2.50	2.88	0.63	0.38	13.13
		1973	1.40	0.28	1.96	0.	0.	0.70	1.26	0.70	0.	0.98	0.84	0.56	8.69
		1974	0.79	0.	0.52	0.26	0.39	0.	0.92	0.13	0.26	4.85	0.92	0.39	9.44
		1975	0.77	0.62	2.15	0.46	0.31	0.15	2.77	1.54	1.54	1.38	0.62	0.46	12.77
		1976	0.13	0.93	0.40	0.79	1.46	0.26	2.65	0.40	4.11	2.65	0.13	0.40	14.31
		1977	0.62	0.	0.31	0.16	4.06	1.25	1.41	2.50	1.25	0.78	0.	0.16	12.49
		1978	0.87	1.05	3.23	3.06	0.35	0.	0.44	1.05	1.75	0.87	0.79	0.44	13.88
		1979	0.29	0.87	1.24	1.02	0.95	0.22	0.95	1.02	0.	1.02	0.22	0.	7.78
		MEAN	0.75	0.52	0.89	1.00	0.97	1.47	1.61	1.49	1.37	1.42	0.81	0.81	13.11

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
13	7400														
		1964	0.	0.	0.	0.	2.09	1.71	0.38	2.09	0.	0.76	1.14	2.09	10.27
		1965	0.29	0.73	1.31	0.87	0.58	1.02	3.19	3.05	1.74	0.29	3.34	0.87	17.28
		1966	0.44	0.29	0.29	0.15	0.58	0.44	0.87	1.16	3.34	0.44	0.58	3.78	12.35
		1967	0.40	0.27	0.13	2.01	1.21	6.85	1.21	1.07	3.76	0.	0.54	0.67	18.13
		1968	0.31	1.13	0.62	1.13	0.72	1.23	2.37	1.03	0.21	1.85	0.31	0.21	11.11
		1969	2.74	0.87	0.37	0.62	0.25	3.73	2.61	0.75	1.12	0.99	0.87	0.75	15.67
		1970	0.93	0.27	0.13	0.40	0.	2.66	3.32	3.19	0.40	0.13	1.33	0.80	13.56
		1971	0.32	0.16	0.40	2.42	1.70	0.	0.48	1.45	0.32	2.18	0.40	1.21	11.07
		1972	0.35	0.	0.	1.06	0.59	2.35	0.	1.99	2.35	2.70	0.59	0.35	12.32
		1973	1.30	0.26	1.82	0.	0.	0.65	1.17	0.65	0.	0.91	0.78	0.52	8.05
		1974	0.70	0.	0.46	0.23	0.35	0.	0.81	0.12	0.23	4.29	0.81	0.35	8.34
		1975	0.73	0.59	2.05	0.44	0.29	0.15	2.64	1.47	1.47	1.32	0.59	0.44	12.18
		1976	0.13	0.94	0.40	0.81	1.48	0.27	2.69	0.40	4.17	2.69	0.13	0.40	14.52
		1977	0.61	0.	0.31	0.15	3.97	1.22	1.37	2.44	1.22	0.76	0.	0.15	12.22
		1978	0.91	1.10	3.38	3.20	0.37	0.	0.46	1.10	1.83	0.91	0.82	0.46	14.54
		1979	0.29	0.87	1.24	1.02	0.95	0.22	0.95	1.02	0.	1.02	0.22	0.	7.79
		MEAN	0.70	0.50	0.86	0.97	0.95	1.41	1.54	1.44	1.38	1.33	0.78	0.81	12.68

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
14	8150														
		1968	0.44	1.61	0.88	1.61	1.02	1.75	3.36	1.46	0.29	2.63	0.44	0.29	15.76
		1969	3.39	1.08	0.46	0.77	0.31	4.63	3.24	0.93	1.39	1.23	1.08	0.93	19.44
		1970	0.84	0.24	0.12	0.36	0.	2.40	3.00	2.88	0.36	0.12	1.20	0.72	12.22
		1971	0.35	0.17	0.44	2.62	1.83	0.	0.52	1.57	0.35	2.36	0.44	1.31	11.96
		1972	0.36	0.	0.	1.08	0.60	2.39	0.	2.03	2.39	2.75	0.60	0.36	12.55
		1973	1.56	0.31	2.19	0.	0.	0.78	1.41	0.78	0.	1.09	0.94	0.62	9.68
		1974	0.85	0.	0.57	0.28	0.43	0.	1.00	0.14	0.28	5.26	1.00	0.43	10.24
		1975	0.72	0.57	2.01	0.43	0.29	0.14	2.58	1.43	1.43	1.29	0.57	0.43	11.91
		1976	0.15	1.05	0.45	0.90	1.66	0.30	3.01	0.45	4.66	3.01	0.15	0.45	16.25
		1977	0.64	0.	0.32	0.16	4.14	1.27	1.43	2.55	1.27	0.80	0.	0.16	12.75
		1978	0.95	1.14	3.53	3.34	0.38	0.	0.48	1.14	1.91	0.95	0.86	0.48	15.17
		1979	0.28	0.83	1.18	0.97	0.90	0.21	0.90	0.97	0.	0.97	0.21	0.	7.42
		1980	1.31	2.78	1.24	0.69	1.85	0.77	0.69	0.93	0.62	0.93	1.00	1.08	13.90
		MEAN	0.91	0.75	1.03	1.02	1.03	1.13	1.66	1.33	1.15	1.80	0.65	0.56	13.02

TABLE B-4-2; PRECIPITATION RECORD OF ELY DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; STEPTOE

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
15	8060														
		1968	0.43	1.59	0.87	1.59	1.01	1.73	3.32	1.44	0.29	2.60	0.43	0.29	15.60
		1969	3.33	1.06	0.45	0.76	0.30	4.54	3.18	0.91	1.36	1.21	1.06	0.91	19.07
		1970	1.20	0.34	0.17	0.51	0.	3.42	4.28	4.11	0.51	0.17	1.71	1.03	17.45
		1971	0.39	0.19	0.48	2.89	2.02	0.	0.58	1.73	0.39	2.60	0.48	1.45	13.20
		1972	0.23	0.	0.	0.68	0.38	1.51	0.	1.28	1.51	1.73	0.38	0.23	7.92
		1973	1.67	0.33	2.34	0.	0.	0.84	1.50	0.84	0.	1.17	1.00	0.67	10.36
		1974	0.79	0.	0.52	0.26	0.39	0.	0.92	0.13	0.26	4.85	0.92	0.39	9.44
		1975	0.73	0.58	2.04	0.44	0.29	0.15	2.62	1.45	1.45	1.31	0.58	0.44	12.07
		1976	0.12	0.87	0.37	0.75	1.37	0.25	2.49	0.37	3.87	2.49	0.12	0.37	13.47
		1977	0.73	0.	0.37	0.18	4.76	1.46	1.65	2.93	1.46	0.92	0.	0.18	14.65
		1978	0.85	1.02	3.14	2.97	0.34	0.	0.42	1.02	1.70	0.85	0.76	0.42	13.49
		1979	0.40	1.21	1.71	1.41	1.31	0.30	1.31	1.41	0.	1.41	0.30	0.	10.75
		1980	1.34	2.83	1.26	0.71	1.89	0.79	0.71	0.94	0.63	0.94	1.02	1.10	14.17
		MEAN	1.01	0.83	1.13	1.09	1.16	1.24	1.90	1.53	1.12	1.85	0.73	0.62	14.20

TABLE B-5-1; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MATHEWS CANYON

CAN	ELEVATION	YEAR					MONTH (INCHES)								TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
1	5600	1962	0.	0.	0.	0.	0.	0.	0.	0.	1.50	0.70	0.	0.40	2.60
		1963	0.11	1.27	0.95	2.01	0.	0.21	0.63	0.32	2.75	0.11	2.54	0.	10.89
		1964	0.38	0.56	2.25	1.50	2.07	0.75	0.19	1.13	0.	0.19	0.75	0.38	10.14
		1965	0.42	0.32	1.59	4.34	0.85	0.11	2.54	0.64	0.95	0.	3.07	3.71	18.53
		1966	0.	1.00	0.11	0.11	0.	0.	1.55	0.11	3.10	0.33	0.55	4.43	11.30
		1967	0.98	0.11	0.22	1.74	0.44	0.65	2.18	2.18	6.64	0.	1.85	0.44	17.42
		1968	0.48	1.84	0.77	0.10	0.10	0.29	4.55	0.48	0.	0.68	0.10	0.19	9.59
		1969	5.72	4.94	0.58	0.10	1.36	0.78	0.97	1.07	0.48	0.78	0.87	0.10	17.74
		1970	0.22	1.54	1.65	0.55	0.	0.11	1.65	2.20	0.11	0.	2.75	0.22	11.00
		1971	0.11	1.38	0.34	0.23	2.06	0.	2.41	3.67	0.11	1.38	0.11	4.59	16.40
		1972	0.	0.	0.	0.37	0.19	1.58	0.	1.58	0.74	4.73	2.13	0.74	12.05
		1973	1.25	2.50	4.20	0.34	0.45	0.23	0.79	0.79	0.	0.68	1.25	0.34	12.83
		1974	1.10	0.09	0.55	0.46	0.09	0.	0.64	0.73	0.09	6.34	0.55	0.73	11.39
		1975	0.22	0.55	4.69	0.11	2.84	0.	1.09	1.53	0.33	0.11	0.22	6.87	18.54
		1976	0.	2.71	0.19	1.49	0.	0.	0.75	0.	3.73	1.87	0.19	0.	10.92
		1977	0.40	0.13	0.40	0.13	5.24	1.21	0.94	2.55	1.07	0.27	0.13	0.81	13.30
		1978	2.84	4.82	6.62	2.65	0.76	0.09	0.	0.66	1.32	0.38	3.50	2.08	25.71
		1979	1.18	1.38	6.10	0.	1.97	0.	1.57	3.34	0.	0.20	0.59	0.20	16.52
		1980	7.86	8.03	3.01	0.84	0.84	0.	1.00	0.17	1.00	0.17	1.00	0.67	24.59
		MEAN	1.29	1.84	1.90	0.95	1.07	0.33	1.30	1.29	1.33	0.99	1.17	1.42	14.88

TABLE B-5-1; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MATHEWS CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
2	5700														
		1962	0.	0.	0.	0.	0.	0.	0.	0.	0.96	0.72	0.	0.48	2.16
		1963	0.23	1.38	1.26	2.41	0.	0.34	0.	1.72	3.22	0.11	2.64	0.	13.32
		1964	0.18	0.	1.10	1.83	2.20	0.73	0.73	1.83	0.	0.	1.10	0.92	10.63
		1965	0.32	0.42	1.37	6.21	0.84	0.	0.95	0.84	0.63	0.	6.11	5.06	22.75
		1966	0.13	1.76	0.25	0.13	0.	0.	2.14	0.38	2.90	0.38	0.	5.29	13.36
		1967	1.58	0.	0.63	1.89	0.79	0.63	3.47	2.05	3.31	0.	3.31	0.95	18.61
		1968	1.10	3.31	2.07	0.69	0.55	0.55	3.18	0.55	0.	0.97	0.14	0.	13.12
		1969	9.79	5.09	0.77	0.19	0.	0.	0.86	0.96	0.19	0.48	1.06	0.29	19.67
		1970	0.43	1.62	3.03	0.54	0.	0.11	1.30	3.03	0.32	0.	2.71	0.32	13.42
		1971	0.	1.56	0.52	0.52	2.73	0.39	0.39	8.31	0.	1.30	1.30	0.	17.01
		1972	0.	0.	0.	0.58	0.33	1.50	0.08	2.00	1.50	4.00	2.33	0.25	12.59
		1973	0.78	3.02	3.41	0.68	0.49	0.19	1.56	0.88	0.	0.88	2.04	0.39	14.31
		1974	1.51	0.09	0.66	0.57	0.09	0.	0.85	0.85	0.09	6.70	0.75	0.94	13.11
		1975	0.29	0.69	4.42	0.20	2.75	0.	1.18	1.77	0.29	0.10	0.29	6.38	18.36
		1976	0.	2.05	0.14	1.13	0.28	0.	1.13	0.	2.97	1.48	0.21	0.	9.39
		1977	0.53	0.11	0.32	0.11	6.77	1.16	0.95	3.70	0.32	0.21	0.32	0.95	15.44
		1978	3.56	6.47	7.85	2.18	0.65	0.07	0.	0.58	1.53	0.44	1.82	2.18	27.34
		MEAN	1.28	1.73	1.75	1.22	1.15	0.35	1.18	1.81	1.15	1.04	1.52	1.43	15.62

TABLE B-5-1; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MATHEWS CANYON

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
3	5850														
		1962	0.	0.	0.	0.	0.	0.	0.	0.	1.23	0.92	0.	0.62	2.77
		1963	0.26	1.58	1.45	2.77	0.	0.40	0.	1.98	3.69	0.13	3.03	0.	15.28
		1964	0.22	0.	1.33	2.21	2.66	0.89	0.89	2.21	0.	0.	1.33	1.11	12.84
		1965	0.35	0.46	1.51	6.84	0.93	0.	1.04	0.93	0.70	0.	6.73	5.57	25.05
		1966	0.14	1.97	0.28	0.14	0.	0.	2.39	0.42	3.24	0.42	0.	5.91	14.91
		1967	1.58	0.	0.63	1.89	0.79	0.63	3.47	2.05	3.31	0.	3.31	0.95	18.59
		1968	1.28	3.83	2.40	0.80	0.64	0.64	3.67	0.64	0.	1.12	0.16	0.	15.17
		1969	10.23	5.32	0.80	0.20	0.	0.	0.90	1.00	0.20	0.50	1.10	0.30	20.57
		1970	0.45	1.67	3.12	0.56	0.	0.11	1.34	3.12	0.33	0.	2.79	0.33	13.83
		1971	0.	1.53	0.51	0.51	2.68	0.38	0.38	8.15	0.	1.27	1.27	0.	16.69
		1972	0.	0.	0.	0.68	0.39	1.74	0.10	2.32	1.74	4.65	2.71	0.29	14.62
		1973	0.85	3.31	3.74	0.75	0.53	0.21	1.71	0.96	0.	0.96	2.24	0.43	15.71
		1974	1.61	0.10	0.71	0.60	0.10	0.	0.91	0.91	0.10	7.16	0.81	1.01	14.01
		1975	0.34	0.79	5.09	0.23	3.17	0.	1.36	2.03	0.34	0.11	0.34	7.35	21.14
		1976	0.	2.35	0.16	1.30	0.32	0.	1.30	0.	3.41	1.70	0.24	0.	10.79
		1977	0.47	0.09	0.28	0.09	5.95	1.02	0.84	3.26	0.28	0.19	0.28	0.84	13.58
		1978	3.37	6.12	7.42	2.06	0.62	0.07	0.	0.55	1.44	0.41	1.72	2.06	25.84
		MEAN	1.32	1.82	1.83	1.34	1.17	0.38	1.26	1.90	1.24	1.14	1.64	1.57	16.63

TABLE B-5-1; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MATHEWS CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
4	5680														
		1962	0.	0.	0.	0.	0.	0.	0.	0.	0.96	0.72	0.	0.48	2.17
		1963	0.20	1.20	1.10	2.09	0.	0.30	0.	1.49	2.79	0.10	2.29	0.	11.56
		1964	0.16	0.	0.97	1.62	1.95	0.65	0.65	1.62	0.	0.	0.97	0.81	9.41
		1965	0.27	0.36	1.18	5.34	0.72	0.	0.81	0.72	0.54	0.	5.25	4.35	19.56
		1966	0.11	1.58	0.23	0.11	0.	0.	1.92	0.34	2.60	0.34	0.	4.75	11.99
		1967	1.57	0.	0.63	1.88	0.78	0.63	3.45	2.04	3.30	0.	3.30	0.94	18.52
		1968	0.89	2.67	1.67	0.56	0.45	0.45	2.56	0.45	0.	0.78	0.11	0.	10.57
		1969	10.05	5.22	0.79	0.20	0.	0.	0.89	0.98	0.20	0.49	1.08	0.30	20.19
		1970	0.38	1.43	2.68	0.48	0.	0.10	1.15	2.68	0.29	0.	2.39	0.29	11.85
		1971	0.	1.40	0.47	0.47	2.44	0.35	0.35	7.45	0.	1.16	1.16	0.	15.25
		1972	0.	0.	0.	0.62	0.36	1.61	0.09	2.14	1.61	4.28	2.50	0.27	13.47
		1973	0.73	2.82	3.18	0.64	0.45	0.18	1.45	0.82	0.	0.82	1.91	0.36	13.36
		1974	1.53	0.10	0.67	0.57	0.10	0.	0.86	0.86	0.10	6.78	0.76	0.96	13.28
		1975	0.30	0.70	4.50	0.20	2.80	0.	1.20	1.80	0.30	0.10	0.30	6.49	18.68
		1976	0.	2.23	0.15	1.23	0.31	0.	1.23	0.	3.23	1.62	0.23	0.	10.23
		1977	0.46	0.09	0.28	0.09	5.94	1.02	0.83	3.25	0.28	0.19	0.28	0.83	13.54
		1978	3.35	6.09	7.39	2.05	0.62	0.07	0.	0.55	1.44	0.41	1.71	2.05	25.72
		1979	1.09	1.28	6.02	0.	1.18	0.	1.48	3.45	0.	0.20	0.49	0.10	15.29
		1980	7.93	8.10	3.04	0.84	0.84	0.	0.93	0.17	1.01	0.08	0.51	0.67	24.13
		MEAN	1.60	1.95	1.93	1.07	1.06	0.30	1.11	1.72	1.05	0.96	1.34	1.26	15.36

TABLE B-5-1; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MATHEWS CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
5	5720														
		1962	0.	0.	0.	0.	0.	0.	0.	0.	0.96	0.72	0.	0.48	2.15
		1963	0.23	1.37	1.25	2.39	0.	0.34	0.	1.71	3.19	0.11	2.62	0.	13.22
		1964	0.18	0.	1.06	1.77	2.12	0.71	0.71	1.77	0.	0.	1.06	0.89	10.27
		1965	0.30	0.40	1.31	5.95	0.81	0.	0.91	0.81	0.60	0.	5.85	4.84	21.78
		1966	0.12	1.73	0.25	0.12	0.	0.	2.10	0.37	2.84	0.37	0.	5.18	13.07
		1967	1.54	0.	0.62	1.85	0.77	0.62	3.40	2.01	3.24	0.	3.24	0.93	18.21
		1968	1.04	3.12	1.95	0.65	0.52	0.52	2.99	0.52	0.	0.91	0.13	0.	12.34
		1969	10.95	5.69	0.86	0.21	0.	0.	0.97	1.07	0.21	0.54	1.18	0.32	22.00
		1970	0.41	1.53	2.86	0.51	0.	0.10	1.23	2.86	0.31	0.	2.55	0.31	12.67
		1971	0.	1.92	0.64	0.64	3.37	0.48	0.48	10.26	0.	1.60	1.60	0.	21.01
		1972	0.	0.	0.	0.71	0.41	1.82	0.10	2.43	1.82	4.86	2.84	0.30	15.30
		1973	0.78	3.04	3.43	0.69	0.49	0.20	1.57	0.88	0.	0.88	2.06	0.39	14.41
		1974	1.54	0.10	0.68	0.58	0.10	0.	0.87	0.87	0.10	6.85	0.77	0.97	13.42
		1975	0.32	0.74	4.74	0.21	2.95	0.	1.26	1.90	0.32	0.11	0.32	6.84	19.69
		1976	0.	2.44	0.17	1.35	0.34	0.	1.35	0.	3.54	1.77	0.25	0.	11.21
		1977	0.52	0.10	0.31	0.10	6.65	1.14	0.93	3.63	0.31	0.21	0.31	0.93	15.16
		1978	3.39	6.16	7.48	2.08	0.62	0.07	0.	0.55	1.45	0.42	1.73	2.08	26.04
		MEAN	1.35	1.78	1.74	1.23	1.19	0.37	1.17	1.96	1.17	1.13	1.55	1.43	16.07

TABLE B-5-1; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MATHEWS CANYON

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
6	5800														
		1962	0.	0.	0.	0.	0.	0.	0.	0.	1.16	0.87	0.	0.58	2.61
		1963	0.25	1.48	1.36	2.59	0.	0.37	0.	1.85	3.46	0.12	2.84	0.	14.32
		1964	0.18	0.	1.07	1.78	2.13	0.71	0.71	1.78	0.	0.	1.07	0.89	10.31
		1965	0.34	0.45	1.45	6.60	0.89	0.	1.01	0.89	0.67	0.	6.48	5.37	24.15
		1966	0.14	1.96	0.28	0.14	0.	0.	2.38	0.42	3.22	0.42	0.	5.88	14.83
		1967	1.58	0.	0.63	1.90	0.79	0.63	3.48	2.06	3.32	0.	3.32	0.95	18.67
		1968	1.42	4.26	2.67	0.89	0.71	0.71	4.09	0.71	0.	1.24	0.18	0.	16.88
		1969	12.06	6.27	0.95	0.24	0.	0.	1.06	1.18	0.24	0.59	1.30	0.35	24.24
		1970	0.45	1.68	3.13	0.56	0.	0.11	1.34	3.13	0.34	0.	2.80	0.34	13.87
		1971	0.	1.82	0.61	0.61	3.18	0.45	0.45	9.70	0.	1.52	1.52	0.	19.85
		1972	0.	0.	0.	0.79	0.45	2.04	0.11	2.71	2.04	5.43	3.17	0.34	17.08
		1973	0.73	2.84	3.21	0.64	0.46	0.18	1.47	0.82	0.	0.82	1.92	0.37	13.47
		1974	1.68	0.10	0.73	0.63	0.10	0.	0.94	0.94	0.10	7.45	0.84	1.05	14.58
		1975	0.34	0.80	5.17	0.23	3.21	0.	1.38	2.07	0.34	0.11	0.34	7.46	21.47
		1976	0.	2.53	0.17	1.39	0.35	0.	1.39	0.	3.66	1.83	0.26	0.	11.59
		1977	0.56	0.11	0.34	0.11	7.16	1.23	1.01	3.92	0.34	0.22	0.34	1.01	16.34
		1978	3.48	6.32	7.67	2.13	0.64	0.07	0.	0.57	1.49	0.43	1.78	2.13	26.70
		MEAN	1.44	1.91	1.83	1.32	1.25	0.40	1.29	2.04	1.27	1.23	1.65	1.56	17.21

TABLE B-5-1; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MATHEWS CANYON

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
7	5820														
		1962	0.	0.	0.	0.	0.	0.	0.	0.	1.06	0.80	0.	0.53	2.39
		1963	0.23	1.39	1.28	2.44	0.	0.35	0.	1.74	3.25	0.12	2.67	0.	13.46
		1964	0.20	0.	1.21	2.02	2.42	0.81	0.81	2.02	0.	0.	1.21	1.01	11.71
		1965	0.33	0.43	1.41	6.40	0.87	0.	0.98	0.87	0.65	0.	6.29	5.20	23.42
		1966	0.13	1.85	0.26	0.13	0.	0.	2.25	0.40	3.04	0.40	0.	5.56	14.02
		1967	1.29	0.	0.51	1.54	0.64	0.51	2.83	1.67	2.70	0.	2.70	0.77	15.18
		1968	1.23	3.69	2.31	0.77	0.61	0.61	3.53	0.61	0.	1.08	0.15	0.	14.60
		1969	10.90	5.66	0.85	0.21	0.	0.	0.96	1.07	0.21	0.53	1.18	0.32	21.90
		1970	0.47	1.76	3.29	0.59	0.	0.12	1.41	3.29	0.35	0.	2.94	0.35	14.59
		1971	0.	1.73	0.58	0.58	3.02	0.43	0.43	9.20	0.	1.44	1.44	0.	18.84
		1972	0.	0.	0.	0.86	0.49	2.20	0.12	2.93	2.20	5.87	3.42	0.37	18.46
		1973	0.79	3.05	3.44	0.69	0.49	0.20	1.57	0.88	0.	0.88	2.06	0.39	14.44
		1974	1.76	0.11	0.77	0.66	0.11	0.	0.99	0.99	0.11	7.82	0.88	1.10	15.30
		1975	0.35	0.81	5.21	0.23	3.24	0.	1.39	2.08	0.35	0.12	0.35	7.53	21.65
		1976	0.	2.46	0.17	1.35	0.34	0.	1.35	0.	3.56	1.78	0.25	0.	11.26
		1977	0.55	0.11	0.33	0.11	7.07	1.21	0.99	3.86	0.33	0.22	0.33	0.99	16.12
		1978	3.46	6.29	7.63	2.12	0.64	0.07	0.	0.57	1.48	0.42	1.77	2.12	26.57
		MEAN	1.36	1.84	1.83	1.30	1.25	0.41	1.23	2.01	1.21	1.26	1.63	1.54	16.86

TABLE B-5-1; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MATHEWS CANYON

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
8	5880	1962	0.	0.	0.	0.	0.	0.	0.	0.	1.13	0.85	0.	0.57	2.55
		1963	0.23	1.38	1.26	2.41	0.	0.34	0.	1.72	3.22	0.11	2.64	0.	13.33
		1964	0.15	0.	0.89	1.48	1.78	0.59	0.59	1.48	0.	0.	0.89	0.74	8.58
		1965	0.33	0.45	1.45	6.57	0.89	0.	1.00	0.89	0.67	0.	6.46	5.35	24.07
		1966	0.14	1.98	0.28	0.14	0.	0.	2.40	0.42	3.25	0.42	0.	5.94	14.98
		1967	1.29	0.	0.52	1.55	0.65	0.52	2.84	1.68	2.71	0.	2.71	0.77	15.24
		1968	1.23	3.69	2.31	0.77	0.62	0.62	3.54	0.62	0.	1.08	0.15	0.	14.61
		1969	10.61	5.51	0.83	0.21	0.	0.	0.94	1.04	0.21	0.52	1.14	0.31	21.33
		1970	0.49	1.83	3.42	0.61	0.	0.12	1.47	3.42	0.37	0.	3.05	0.37	15.15
		1971	0.	1.68	0.56	0.56	2.95	0.42	0.42	8.98	0.	1.40	1.40	0.	18.39
		1972	0.	0.	0.	0.63	0.36	1.63	0.09	2.18	1.63	4.35	2.54	0.27	13.69
		1973	0.80	3.11	3.51	0.70	0.50	0.20	1.61	0.90	0.	0.90	2.11	0.40	14.76
		1974	1.84	0.11	0.80	0.69	0.11	0.	1.03	1.03	0.11	8.16	0.92	1.15	15.97
		1975	0.31	0.73	4.69	0.21	2.92	0.	1.25	1.88	0.31	0.10	0.31	6.78	19.50
		1976	0.	2.42	0.17	1.33	0.33	0.	1.33	0.	3.50	1.75	0.25	0.	11.09
		1977	0.52	0.10	0.31	0.10	6.65	1.14	0.94	3.64	0.31	0.21	0.31	0.94	15.18
		1978	3.44	6.25	7.59	2.11	0.63	0.07	0.	0.56	1.48	0.42	1.76	2.11	26.41
		MEAN	1.34	1.83	1.79	1.26	1.16	0.36	1.22	1.91	1.18	1.20	1.57	1.51	16.32

TABLE B-5-1; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MATHEWS CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
9	5700														
		1962	0.	0.	0.	0.	0.	0.	0.	0.	1.08	0.81	0.	0.54	2.43
		1963	0.20	1.21	1.11	2.12	0.	0.30	0.	1.51	2.82	0.10	2.32	0.	11.70
		1964	0.16	0.	0.99	1.64	1.97	0.66	0.66	1.64	0.	0.	0.99	0.82	9.54
		1965	0.26	0.35	1.15	5.20	0.71	0.	0.79	0.71	0.53	0.	5.11	4.23	19.04
		1966	0.11	1.55	0.22	0.11	0.	0.	1.88	0.33	2.54	0.33	0.	4.64	11.72
		1967	1.76	0.	0.70	2.11	0.88	0.70	3.87	2.29	3.70	0.	3.70	1.06	20.77
		1968	1.03	3.08	1.92	0.64	0.51	0.51	2.95	0.51	0.	0.90	0.13	0.	12.19
		1969	10.75	5.59	0.84	0.21	0.	0.	0.95	1.05	0.21	0.53	1.16	0.32	21.61
		1970	0.37	1.40	2.61	0.47	0.	0.09	1.12	2.61	0.28	0.	2.33	0.28	11.58
		1971	0.	1.38	0.46	0.46	2.42	0.35	0.35	7.37	0.	1.15	1.15	0.	15.09
		1972	0.	0.	0.	0.69	0.39	1.77	0.10	2.36	1.77	4.71	2.75	0.29	14.82
		1973	0.72	2.79	3.15	0.63	0.45	0.18	1.44	0.81	0.	0.81	1.89	0.36	13.21
		1974	1.42	0.09	0.62	0.53	0.09	0.	0.80	0.80	0.09	6.31	0.71	0.89	12.35
		1975	0.31	0.72	4.62	0.21	2.87	0.	1.23	1.85	0.31	0.10	0.31	6.67	19.18
		1976	0.	2.32	0.16	1.28	0.32	0.	1.28	0.	3.36	1.68	0.24	0.	10.63
		1977	0.46	0.09	0.27	0.09	5.83	1.00	0.82	3.19	0.27	0.18	0.27	0.82	13.29
		1978	3.38	6.13	7.44	2.07	0.62	0.07	0.	0.55	1.45	0.41	1.72	2.07	25.90
		1979	1.10	1.30	6.12	0.	1.20	0.	1.50	3.51	0.	0.20	0.50	0.10	15.54
		1980	7.47	7.63	2.86	0.80	0.80	0.	0.87	0.16	0.95	0.08	0.48	0.64	22.74
		MEAN	1.62	1.97	1.95	1.08	1.06	0.32	1.15	1.75	1.08	0.98	1.37	1.26	15.58

TABLE B-5-1; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MATHEWS CANYON

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
10	5690														
		1962	0.	0.	0.	0.	0.	0.	0.	0.	1.07	0.80	0.	0.53	2.40
		1963	0.20	1.21	1.11	2.11	0.	0.30	0.	1.51	2.82	0.10	2.32	0.	11.68
		1964	0.17	0.	1.03	1.71	2.05	0.68	0.68	1.71	0.	0.	1.03	0.86	9.93
		1965	0.32	0.43	1.41	6.38	0.86	0.	0.97	0.86	0.65	0.	6.27	5.19	23.35
		1966	0.14	1.99	0.28	0.14	0.	0.	2.42	0.43	3.27	0.43	0.	5.98	15.09
		1967	1.49	0.	0.60	1.79	0.75	0.60	3.28	1.94	3.13	0.	3.13	0.89	17.59
		1968	1.16	3.48	2.17	0.72	0.58	0.58	3.33	0.58	0.	1.01	0.14	0.	13.76
		1969	13.17	6.84	1.03	0.26	0.	0.	1.16	1.29	0.26	0.65	1.42	0.39	26.47
		1970	0.43	1.61	3.01	0.54	0.	0.11	1.29	3.01	0.32	0.	2.69	0.32	13.35
		1971	0.	1.59	0.53	0.53	2.78	0.40	0.40	8.47	0.	1.32	1.32	0.	17.33
		1972	0.	0.	0.	0.69	0.39	1.78	0.10	2.37	1.78	4.74	2.76	0.30	14.91
		1973	0.73	2.83	3.19	0.64	0.46	0.18	1.46	0.82	0.	0.82	1.91	0.36	13.40
		1974	1.59	0.10	0.69	0.59	0.10	0.	0.89	0.89	0.10	7.03	0.79	0.99	13.77
		1975	0.31	0.72	4.61	0.21	2.87	0.	1.23	1.85	0.31	0.10	0.31	6.66	19.17
		1976	0.	2.44	0.17	1.35	0.34	0.	1.35	0.	3.54	1.77	0.25	0.	11.21
		1977	0.53	0.11	0.32	0.11	6.76	1.16	0.95	3.70	0.32	0.21	0.32	0.95	15.43
		1978	3.42	6.20	7.53	2.09	0.63	0.07	0.	0.56	1.46	0.42	1.74	2.09	26.21
		1979	1.15	1.36	6.36	0.	1.25	0.	1.56	3.65	0.	0.21	0.52	0.10	16.17
		1980	7.88	8.05	3.02	0.84	0.84	0.	0.92	0.17	1.01	0.08	0.50	0.67	23.99
		MEAN	1.81	2.15	2.05	1.15	1.14	0.32	1.22	1.87	1.11	1.03	1.44	1.38	16.68

TABLE B-5-1; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MATHEWS CANYON

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
11	5780														
		1962	0.	0.	0.	0.	0.	0.	0.	0.	1.33	1.00	0.	0.66	2.99
		1963	0.21	1.29	1.18	2.25	0.	0.32	0.	1.61	3.01	0.11	2.47	0.	12.45
		1964	0.19	0.	1.16	1.94	2.33	0.78	0.78	1.94	0.	0.	1.16	0.97	11.25
		1965	0.36	0.48	1.56	7.08	0.96	0.	1.08	0.96	0.72	0.	6.96	5.76	25.93
		1966	0.16	2.17	0.31	0.16	0.	0.	2.64	0.47	3.57	0.47	0.	6.52	16.46
		1967	1.42	0.	0.57	1.70	0.71	0.57	3.11	1.84	2.97	0.	2.97	0.85	16.70
		1968	1.01	3.04	1.90	0.63	0.51	0.51	2.91	0.51	0.	0.89	0.13	0.	12.02
		1969	12.20	6.34	0.96	0.24	0.	0.	1.08	1.20	0.24	0.60	1.32	0.36	24.52
		1970	0.50	1.87	3.50	0.62	0.	0.12	1.50	3.50	0.37	0.	3.12	0.37	15.48
		1971	0.	1.80	0.60	0.60	3.15	0.45	0.45	9.59	0.	1.50	1.50	0.	19.62
		1972	0.	0.	0.	0.64	0.37	1.66	0.09	2.21	1.66	4.42	2.58	0.28	13.90
		1973	0.71	2.76	3.12	0.62	0.45	0.18	1.43	0.80	0.	0.80	1.87	0.36	13.11
		1974	1.65	0.10	0.72	0.62	0.10	0.	0.93	0.93	0.10	7.33	0.83	1.03	14.36
		1975	0.32	0.74	4.74	0.21	2.95	0.	1.26	1.90	0.32	0.11	0.32	6.85	19.70
		1976	0.	2.50	0.17	1.38	0.34	0.	1.38	0.	3.62	1.81	0.26	0.	11.47
		1977	0.55	0.11	0.33	0.11	7.00	1.20	0.98	3.83	0.33	0.22	0.33	0.98	15.96
		1978	3.59	6.52	7.91	2.20	0.66	0.07	0.	0.59	1.54	0.44	1.83	2.20	27.53
		1979	1.20	1.41	6.63	0.	1.30	0.	1.63	3.80	0.	0.22	0.54	0.11	16.85
		1980	7.92	8.09	3.03	0.84	0.84	0.	0.93	0.17	1.01	0.08	0.51	0.67	24.11
		MEAN	1.78	2.18	2.13	1.21	1.20	0.33	1.23	1.98	1.15	1.05	1.51	1.47	17.21

TABLE B-5-1; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MATHEWS CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
12	5900														
		1962	0.	0.	0.	0.	0.	0.	0.	0.	1.49	1.12	0.	0.75	3.36
		1963	0.26	1.58	1.45	2.76	0.	0.39	0.	1.97	3.68	0.13	3.03	0.	15.26
		1964	0.17	0.	1.03	1.72	2.07	0.69	0.69	1.72	0.	0.	1.03	0.86	10.00
		1965	0.34	0.45	1.48	6.71	0.91	0.	1.02	0.91	0.68	0.	6.59	5.46	24.55
		1966	0.15	2.03	0.29	0.15	0.	0.	2.47	0.44	3.34	0.44	0.	6.09	15.38
		1967	1.37	0.	0.55	1.65	0.69	0.55	3.02	1.78	2.88	0.	2.88	0.82	16.19
		1968	1.11	3.33	2.08	0.69	0.55	0.55	3.19	0.55	0.	0.97	0.14	0.	13.18
		1969	10.82	5.62	0.85	0.21	0.	0.	0.95	1.06	0.21	0.53	1.17	0.32	21.75
		1970	0.53	1.98	3.69	0.66	0.	0.13	1.58	3.69	0.40	0.	3.30	0.40	16.35
		1971	0.	1.76	0.59	0.59	3.09	0.44	0.44	9.41	0.	1.47	1.47	0.	19.26
		1972	0.	0.	0.	0.66	0.37	1.68	0.09	2.25	1.68	4.49	2.62	0.28	14.13
		1973	0.80	3.09	3.49	0.70	0.50	0.20	1.60	0.90	0.	0.90	2.09	0.40	14.66
		1974	1.73	0.11	0.76	0.65	0.11	0.	0.97	0.97	0.11	7.68	0.87	1.08	15.04
		1975	0.31	0.72	4.64	0.21	2.89	0.	1.24	1.86	0.31	0.10	0.31	6.70	19.28
		1976	0.	2.46	0.17	1.35	0.34	0.	1.35	0.	3.56	1.78	0.25	0.	11.26
		1977	0.61	0.12	0.37	0.12	7.82	1.34	1.10	4.27	0.37	0.24	0.37	1.10	17.83
		1978	3.70	6.72	8.16	2.27	0.68	0.08	0.	0.60	1.59	0.45	1.89	2.27	28.40
		1979	1.21	1.43	6.73	0.	1.32	0.	1.65	3.86	0.	0.22	0.55	0.11	17.10
		1980	8.25	8.43	3.16	0.88	0.88	0.	0.97	0.18	1.05	0.09	0.53	0.70	25.10
		MEAN	1.74	2.21	2.19	1.22	1.23	0.34	1.24	2.02	1.18	1.08	1.53	1.44	17.43

TABLE B-5-2; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; PINE CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
1	6520	1963	2.91	0.29	0.73	0.	0.	0.	0.	3.49	2.77	0.44	3.78	0.	14.41
		1964	0.48	0.	1.43	2.86	1.19	1.19	0.24	0.71	0.	0.	1.43	0.24	9.77
		1965	0.13	0.25	0.	6.62	1.27	0.38	1.53	1.02	0.38	0.	5.73	7.01	24.33
		1966	0.38	1.76	0.25	0.	0.13	0.	1.89	1.76	4.40	0.63	1.13	7.41	19.73
		1967	0.56	0.33	1.78	0.67	0.44	1.45	2.22	1.11	3.11	0.	2.56	0.44	14.68
		1968	0.96	3.85	2.51	0.77	0.39	0.96	2.31	3.47	0.	1.16	0.39	0.39	17.15
		1969	5.18	3.42	1.75	0.50	0.25	0.17	1.00	0.75	0.58	0.67	1.34	0.25	15.86
		1970	0.29	1.74	3.34	1.16	0.15	0.	3.05	3.19	0.	0.	4.64	0.73	18.28
		1971	0.15	2.24	0.15	0.60	3.58	0.	1.04	5.07	0.	0.	4.03	2.24	19.10
		1972	0.88	0.88	0.	0.61	0.26	1.23	0.09	2.19	1.14	4.65	1.93	0.35	14.21
		1973	1.19	2.13	4.08	0.60	0.09	0.77	0.60	1.45	0.	0.94	1.70	0.34	13.87
		1974	1.11	0.	0.37	0.74	0.25	0.	1.72	1.23	0.62	8.86	1.23	0.98	17.11
		1975	0.53	1.06	4.42	0.35	1.77	0.	1.41	1.41	0.88	0.18	0.35	0.53	12.90
		1976	0.60	6.53	0.30	1.00	0.50	0.	1.61	0.	5.72	1.81	0.10	0.	18.17
		1977	0.49	0.29	0.49	0.20	6.63	0.49	0.78	2.34	0.39	0.49	0.	0.78	13.36
		1978	3.79	7.32	9.48	2.76	0.95	0.17	0.	0.60	1.64	1.98	3.36	1.29	33.34
		MEAN	1.23	2.01	1.94	1.21	1.12	0.43	1.22	1.86	1.35	1.28	1.98	1.35	16.98

TABLE B-5-2; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; PINE CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
2	6400														
		1963	3.51	0.35	0.88	0.	0.	0.	0.	4.22	3.34	0.53	4.57	0.	17.39
		1964	0.59	0.	1.76	3.52	1.47	1.47	0.29	0.88	0.	0.	1.76	0.29	12.04
		1965	0.14	0.28	0.	7.39	1.42	0.43	1.71	1.14	0.43	0.	6.40	7.82	27.15
		1966	0.43	1.99	0.28	0.	0.14	0.	2.13	1.99	4.97	0.71	1.28	8.38	22.29
		1967	0.74	0.44	2.36	0.89	0.59	1.92	2.95	1.48	4.14	0.	3.40	0.59	19.50
		1968	0.83	3.32	2.16	0.66	0.33	0.83	1.99	2.99	0.	1.00	0.33	0.33	14.76
		1969	5.71	3.78	1.93	0.55	0.28	0.18	1.11	0.83	0.64	0.74	1.47	0.28	17.50
		1970	0.28	1.69	3.23	1.13	0.14	0.	2.95	3.09	0.	0.	4.50	0.70	17.72
		1971	0.15	2.19	0.15	0.58	3.50	0.	1.02	4.96	0.	0.	3.94	2.19	18.68
		1972	0.83	0.83	0.	0.58	0.25	1.16	0.08	2.08	1.08	4.40	1.83	0.33	13.46
		1973	1.13	2.03	3.89	0.57	0.08	0.73	0.57	1.38	0.	0.89	1.62	0.32	13.21
		1974	1.17	0.	0.39	0.78	0.26	0.	1.82	1.30	0.65	9.37	1.30	1.04	18.09
		1975	0.50	1.01	4.20	0.34	1.68	0.	1.34	1.34	0.84	0.17	0.34	0.50	12.27
		1976	0.61	6.58	0.30	1.01	0.51	0.	1.62	0.	5.77	1.82	0.10	0.	18.32
		1977	0.53	0.32	0.53	0.21	7.17	0.53	0.84	2.53	0.42	0.53	0.	0.84	14.45
		1978	3.92	7.58	9.81	2.85	0.98	0.18	0.	0.62	1.69	2.05	3.48	1.34	34.52
		1979	1.53	2.03	8.14	0.	1.02	0.	2.54	3.05	0.	0.34	0.85	0.51	20.00
		1980	7.71	6.58	3.81	1.21	1.65	0.	0.78	0.17	0.52	0.09	0.52	0.69	23.74
		MEAN	1.75	2.39	2.54	1.31	1.25	0.44	1.39	2.00	1.44	1.26	2.09	1.45	19.29

TABLE B-5-2; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; PINE CANYON

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
3	6320														
		1963	3.53	0.35	0.88	0.	0.	0.	0.	4.24	3.35	0.53	4.59	0.	17.48
		1964	0.58	0.	1.75	3.49	1.45	1.45	0.29	0.87	0.	0.	1.75	0.29	11.93
		1965	0.15	0.29	0.	7.59	1.46	0.44	1.75	1.17	0.44	0.	6.57	8.03	27.88
		1966	0.43	1.98	0.28	0.	0.14	0.	2.13	1.98	4.96	0.71	1.28	8.36	22.25
		1967	0.70	0.42	2.23	0.84	0.56	1.82	2.79	1.40	3.91	0.	3.21	0.56	18.43
		1968	0.86	3.46	2.25	0.69	0.35	0.86	2.07	3.11	0.	1.04	0.35	0.35	15.38
		1969	5.87	3.88	1.99	0.57	0.28	0.19	1.14	0.85	0.66	0.76	1.51	0.28	17.98
		1970	0.27	1.64	3.13	1.09	0.14	0.	2.86	3.00	0.	0.	4.36	0.68	17.17
		1971	0.14	2.16	0.14	0.58	3.46	0.	1.01	4.90	0.	0.	3.89	2.16	18.46
		1972	0.92	0.92	0.	0.64	0.27	1.28	0.09	2.29	1.19	4.86	2.02	0.37	14.85
		1973	1.21	2.15	4.13	0.60	0.09	0.77	0.60	1.46	0.	0.95	1.72	0.34	14.03
		1974	1.22	0.	0.41	0.81	0.27	0.	1.89	1.35	0.68	9.73	1.35	1.08	18.78
		1975	0.46	0.93	3.86	0.31	1.54	0.	1.23	1.23	0.77	0.15	0.31	0.46	11.26
		1976	0.63	6.79	0.31	1.04	0.52	0.	1.67	0.	5.96	1.88	0.10	0.	18.91
		1977	0.57	0.34	0.57	0.23	7.78	0.57	0.92	2.75	0.46	0.57	0.	0.92	15.68
		1978	3.69	7.14	9.23	2.69	0.92	0.17	0.	0.59	1.60	1.93	3.27	1.26	32.49
		1979	1.44	1.93	7.70	0.	0.96	0.	2.41	2.89	0.	0.32	0.80	0.48	18.93
		1980	7.48	6.39	3.70	1.18	1.60	0.	0.76	0.17	0.50	0.08	0.50	0.67	23.02
		MEAN	1.77	2.40	2.51	1.31	1.28	0.44	1.39	2.01	1.44	1.30	2.09	1.46	19.41

TABLE B-5-2; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; PINE CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
4	6080														
		1963	3.12	0.31	0.78	0.	0.	0.	0.	3.74	2.96	0.47	4.05	0.	15.42
		1964	0.55	0.	1.66	3.32	1.38	1.38	0.28	0.83	0.	0.	1.66	0.28	11.35
		1965	0.12	0.24	0.	6.11	1.18	0.35	1.41	0.94	0.35	0.	5.29	6.47	22.46
		1966	0.31	1.43	0.20	0.	0.10	0.	1.53	1.43	3.57	0.51	0.92	6.02	16.01
		1967	0.63	0.38	2.02	0.76	0.51	1.64	2.53	1.26	3.54	0.	2.91	0.51	16.68
		1968	0.78	3.10	2.02	0.62	0.31	0.78	1.86	2.79	0.	0.93	0.31	0.31	13.80
		1969	5.18	3.42	1.75	0.50	0.25	0.17	1.00	0.75	0.58	0.67	1.34	0.25	15.86
		1970	0.22	1.31	2.50	0.87	0.11	0.	2.29	2.40	0.	0.	3.48	0.54	13.72
		1971	0.15	2.29	0.15	0.61	3.67	0.	1.07	5.20	0.	0.	4.13	2.29	19.58
		1972	0.90	0.90	0.	0.63	0.27	1.27	0.09	2.26	1.17	4.79	1.99	0.36	14.64
		1973	1.01	1.80	3.45	0.50	0.07	0.65	0.50	1.22	0.	0.79	1.44	0.29	11.72
		1974	1.15	0.	0.38	0.77	0.26	0.	1.79	1.28	0.64	9.20	1.28	1.02	17.77
		1975	0.41	0.81	3.39	0.27	1.36	0.	1.09	1.09	0.68	0.14	0.27	0.41	9.91
		1976	0.54	5.89	0.27	0.91	0.45	0.	1.45	0.	5.16	1.63	0.09	0.	16.39
		1977	0.45	0.27	0.45	0.18	6.17	0.45	0.73	2.18	0.36	0.45	0.	0.73	12.43
		1978	3.58	6.92	8.96	2.61	0.90	0.16	0.	0.57	1.55	1.87	3.18	1.22	31.52
		1979	1.44	1.92	7.68	0.	0.96	0.	2.40	2.88	0.	0.32	0.80	0.48	18.89
		1980	7.98	6.82	3.95	1.26	1.70	0.	0.81	0.18	0.54	0.09	0.54	0.72	24.57
		MEAN	1.68	2.23	2.34	1.18	1.16	0.41	1.23	1.83	1.25	1.22	1.88	1.23	17.66

TABLE B-5-2; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; PINE CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
5	5880														
		1963	2.92	0.29	0.73	0.	0.	0.	0.	3.50	2.77	0.44	3.79	0.	14.43
		1964	0.52	0.	1.55	3.10	1.29	1.29	0.26	0.77	0.	0.	1.55	0.26	10.58
		1965	0.11	0.23	0.	5.90	1.13	0.34	1.36	0.91	0.34	0.	5.10	6.24	21.66
		1966	0.32	1.52	0.22	0.	0.11	0.	1.62	1.52	3.79	0.54	0.97	6.39	17.00
		1967	0.64	0.38	2.03	0.76	0.51	1.65	2.54	1.27	3.56	0.	2.92	0.51	16.77
		1968	0.75	3.00	1.95	0.60	0.30	0.75	1.80	2.70	0.	0.90	0.30	0.30	13.33
		1969	4.67	3.09	1.58	0.45	0.23	0.15	0.90	0.68	0.53	0.60	1.20	0.23	14.30
		1970	0.22	1.32	2.52	0.88	0.11	0.	2.30	2.41	0.	0.	3.51	0.55	13.82
		1971	0.14	2.12	0.14	0.56	3.39	0.	0.99	4.80	0.	0.	3.81	2.12	18.08
		1972	0.79	0.79	0.	0.56	0.24	1.11	0.08	1.99	1.03	4.21	1.75	0.32	12.87
		1973	0.95	1.70	3.27	0.48	0.07	0.61	0.48	1.16	0.	0.75	1.36	0.27	11.11
		1974	0.99	0.	0.33	0.66	0.22	0.	1.54	1.10	0.55	7.94	1.10	0.88	15.33
		1975	0.43	0.86	3.57	0.29	1.43	0.	1.14	1.14	0.71	0.14	0.29	0.43	10.43
		1976	0.56	6.09	0.28	0.94	0.47	0.	1.50	0.	5.34	1.69	0.09	0.	16.96
		1977	0.30	0.18	0.30	0.12	4.08	0.30	0.48	1.44	0.24	0.30	0.	0.48	8.23
		1978	3.73	7.21	9.33	2.71	0.93	0.17	0.	0.59	1.61	1.95	3.31	1.27	32.83
		1979	1.47	1.96	7.85	0.	0.98	0.	2.45	2.94	0.	0.33	0.82	0.49	19.29
		1980	7.59	6.48	3.75	1.19	1.62	0.	0.77	0.17	0.51	0.09	0.51	0.68	23.38
		MEAN	1.60	2.19	2.32	1.13	1.02	0.38	1.19	1.72	1.24	1.11	1.80	1.19	16.89

TABLE B-5-2; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; PINE CANYON

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
6	5810														
		1963	2.78	0.28	0.70	0.	0.	0.	0.	3.34	2.64	0.42	3.62	0.	13.77
		1964	0.54	0.	1.62	3.24	1.35	1.35	0.27	0.81	0.	0.	1.62	0.27	11.06
		1965	0.11	0.21	0.	5.54	1.07	0.32	1.28	0.85	0.32	0.	4.80	5.86	20.36
		1966	0.27	1.28	0.18	0.	0.09	0.	1.37	1.28	3.20	0.46	0.82	5.39	14.35
		1967	0.64	0.38	2.05	0.77	0.51	1.67	2.56	1.28	3.59	0.	2.95	0.51	16.91
		1968	0.73	2.92	1.90	0.58	0.29	0.73	1.75	2.63	0.	0.88	0.29	0.29	13.00
		1969	5.19	3.44	1.76	0.50	0.25	0.17	1.01	0.75	0.59	0.67	1.34	0.25	15.92
		1970	0.20	1.19	2.28	0.79	0.10	0.	2.08	2.18	0.	0.	3.18	0.50	12.51
		1971	0.13	2.01	0.13	0.54	3.22	0.	0.94	4.56	0.	0.	3.62	2.01	17.15
		1972	0.83	0.83	0.	0.58	0.25	1.16	0.08	2.07	1.08	4.39	1.82	0.33	13.41
		1973	0.93	1.66	3.19	0.47	0.07	0.60	0.47	1.13	0.	0.73	1.33	0.27	10.83
		1974	1.02	0.	0.34	0.68	0.23	0.	1.59	1.14	0.57	8.19	1.14	0.91	15.82
		1975	0.56	1.13	4.70	0.38	1.88	0.	1.50	1.50	0.94	0.19	0.38	0.56	13.72
		1976	0.52	5.64	0.26	0.87	0.43	0.	1.39	0.	4.94	1.56	0.09	0.	15.70
		1977	0.38	0.23	0.38	0.15	5.22	0.38	0.61	1.84	0.31	0.38	0.	0.61	10.51
		1978	3.68	7.11	9.20	2.68	0.92	0.17	0.	0.59	1.59	1.92	3.26	1.25	32.36
		1979	1.43	1.90	7.61	0.	0.95	0.	2.38	2.85	0.	0.32	0.79	0.48	18.70
		1980	7.09	6.06	3.51	1.12	1.51	0.	0.72	0.16	0.48	0.08	0.48	0.64	21.83
		MEAN	1.59	2.14	2.34	1.11	1.07	0.38	1.18	1.70	1.19	1.12	1.75	1.12	16.71

TABLE B-5-2; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; PINE CANYON

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
7	5800														
		1963	2.70	0.27	0.67	0.	0.	0.	0.	3.24	2.56	0.40	3.51	0.	13.35
		1964	0.56	0.	1.67	3.34	1.39	1.39	0.28	0.83	0.	0.	1.67	0.28	11.41
		1965	0.10	0.20	0.	5.16	0.99	0.30	1.19	0.79	0.30	0.	4.46	5.45	18.94
		1966	0.27	1.24	0.18	0.	0.09	0.	1.33	1.24	3.11	0.44	0.80	5.24	13.95
		1967	0.68	0.41	2.18	0.82	0.54	1.77	2.72	1.36	3.81	0.	3.13	0.54	17.98
		1968	0.80	3.22	2.09	0.64	0.32	0.80	1.93	2.90	0.	0.97	0.32	0.32	14.32
		1969	4.97	3.29	1.68	0.48	0.24	0.16	0.96	0.72	0.56	0.64	1.28	0.24	15.24
		1970	0.19	1.14	2.18	0.76	0.09	0.	1.99	2.08	0.	0.	3.03	0.47	11.92
		1971	0.14	2.09	0.14	0.56	3.34	0.	0.98	4.74	0.	0.	3.76	2.09	17.83
		1972	0.81	0.81	0.	0.57	0.24	1.13	0.08	2.02	1.05	4.28	1.78	0.32	13.08
		1973	0.93	1.65	3.18	0.46	0.07	0.60	0.46	1.13	0.	0.73	1.32	0.26	10.79
		1974	1.05	0.	0.35	0.70	0.23	0.	1.63	1.16	0.58	8.38	1.16	0.93	16.17
		1975	0.45	0.90	3.75	0.30	1.50	0.	1.20	1.20	0.75	0.15	0.30	0.45	10.95
		1976	0.54	5.85	0.27	0.90	0.45	0.	1.44	0.	5.13	1.62	0.09	0.	16.28
		1977	0.39	0.24	0.39	0.16	5.34	0.39	0.63	1.88	0.31	0.39	0.	0.63	10.76
		1978	3.35	6.47	8.37	2.44	0.84	0.15	0.	0.53	1.45	1.75	2.97	1.14	29.46
		1979	1.30	1.74	6.95	0.	0.87	0.	2.17	2.61	0.	0.29	0.72	0.43	17.09
		1980	7.32	6.25	3.62	1.15	1.56	0.	0.74	0.16	0.49	0.08	0.49	0.66	22.53
		MEAN	1.56	2.11	2.22	1.09	1.07	0.39	1.16	1.68	1.18	1.12	1.71	1.08	16.38

TABLE B-5-2; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; PINE CANYON

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
8	5840														
		1963	2.26	0.23	0.57	0.	0.	0.	0.	2.72	2.15	0.34	2.94	0.	11.20
		1964	0.41	0.	1.22	2.44	1.02	1.02	0.20	0.61	0.	0.	1.22	0.20	8.34
		1965	0.09	0.18	0.	4.58	0.88	0.26	1.06	0.70	0.26	0.	3.96	4.84	16.82
		1966	0.25	1.15	0.16	0.	0.08	0.	1.23	1.15	2.86	0.41	0.74	4.83	12.85
		1967	0.68	0.41	2.17	0.81	0.54	1.76	2.71	1.36	3.80	0.	3.12	0.54	17.91
		1968	0.83	3.33	2.16	0.67	0.33	0.83	2.00	3.00	0.	1.00	0.33	0.33	14.82
		1969	4.80	3.17	1.63	0.46	0.23	0.15	0.93	0.70	0.54	0.62	1.24	0.23	14.71
		1970	0.17	1.02	1.96	0.68	0.09	0.	1.79	1.87	0.	0.	2.73	0.43	10.73
		1971	0.14	2.07	0.14	0.55	3.31	0.	0.97	4.69	0.	0.	3.73	2.07	17.66
		1972	0.69	0.69	0.	0.48	0.21	0.97	0.07	1.73	0.90	3.67	1.52	0.28	11.22
		1973	0.86	1.54	2.95	0.43	0.06	0.55	0.43	1.05	0.	0.68	1.23	0.25	10.03
		1974	1.19	0.	0.40	0.79	0.26	0.	1.85	1.32	0.66	9.52	1.32	1.06	18.38
		1975	0.42	0.85	3.53	0.28	1.41	0.	1.13	1.13	0.71	0.14	0.28	0.42	10.30
		1976	0.45	4.83	0.22	0.74	0.37	0.	1.19	0.	4.23	1.34	0.07	0.	13.44
		1977	0.33	0.20	0.33	0.13	4.49	0.33	0.53	1.59	0.26	0.33	0.	0.53	9.05
		1978	3.35	6.47	8.37	2.44	0.84	0.15	0.	0.53	1.45	1.75	2.97	1.14	29.46
		1979	1.34	1.78	7.13	0.	0.89	0.	2.23	2.67	0.	0.30	0.74	0.45	17.53
		1980	7.20	6.15	3.56	1.13	1.54	0.	0.73	0.16	0.49	0.08	0.49	0.65	22.16
		MEAN	1.50	2.01	2.15	0.98	0.98	0.36	1.12	1.59	1.08	1.12	1.60	1.02	15.51

TABLE B-5-2; PRECIPITATION RECORD OF LAS VEGAS DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; PINE CANYON

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
9	5690	1963	2.24	0.22	0.56	0.	0.	0.	0.	2.69	2.13	0.34	2.92	0.	11.11
		1964	0.48	0.	1.43	2.86	1.19	1.19	0.24	0.71	0.	0.	1.43	0.24	9.77
		1965	0.09	0.19	0.	4.91	0.94	0.28	1.13	0.76	0.28	0.	4.25	5.19	18.03
		1966	0.23	1.09	0.16	0.	0.08	0.	1.17	1.09	2.74	0.39	0.70	4.61	12.27
		1967	0.59	0.36	1.90	0.71	0.47	1.54	2.37	1.18	3.32	0.	2.73	0.47	15.64
		1968	0.77	3.08	2.00	0.62	0.31	0.77	1.85	2.77	0.	0.92	0.31	0.31	13.72
		1969	4.83	3.19	1.63	0.47	0.23	0.16	0.93	0.70	0.54	0.62	1.25	0.23	14.79
		1970	0.20	1.18	2.27	0.79	0.10	0.	2.07	2.17	0.	0.	3.16	0.49	12.43
		1971	0.13	1.93	0.13	0.51	3.08	0.	0.90	4.37	0.	0.	3.47	1.93	16.44
		1972	0.67	0.67	0.	0.47	0.20	0.94	0.07	1.69	0.88	3.58	1.48	0.27	10.93
		1973	0.85	1.52	2.92	0.43	0.06	0.55	0.43	1.03	0.	0.67	1.22	0.24	9.91
		1974	1.09	0.	0.36	0.73	0.24	0.	1.70	1.21	0.61	8.74	1.21	0.97	16.87
		1975	0.42	0.84	3.52	0.28	1.41	0.	1.13	1.13	0.70	0.14	0.28	0.42	10.28
		1976	0.44	4.75	0.22	0.73	0.37	0.	1.17	0.	4.16	1.31	0.07	0.	13.22
		1977	0.35	0.21	0.35	0.14	4.82	0.35	0.57	1.70	0.28	0.35	0.	0.57	9.71
		1978	3.30	6.37	8.25	2.40	0.82	0.15	0.	0.52	1.42	1.72	2.92	1.12	29.02
		1979	1.27	1.69	6.77	0.	0.85	0.	2.12	2.54	0.	0.28	0.71	0.42	16.64
		1980	7.28	6.22	3.60	1.15	1.55	0.	0.74	0.16	0.49	0.08	0.49	0.65	22.41
		MEAN	1.49	1.97	2.12	1.01	0.98	0.35	1.09	1.56	1.04	1.07	1.59	1.01	15.28

TABLE B-6-1; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MILL CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
1	5040														
		1964	0.	0.	0.	0.	0.	0.	0.17	0.52	0.35	1.05	0.70	1.92	4.72
		1965	0.24	0.24	0.	1.06	2.35	3.29	1.06	1.18	0.24	0.59	1.88	0.82	12.94
		1966	0.13	0.64	0.13	1.28	0.51	0.89	0.	0.13	0.38	0.	0.64	1.79	6.52
		1967	0.71	0.12	1.43	2.50	0.59	2.62	0.95	0.12	0.24	0.36	0.48	0.36	10.47
		1968	0.40	1.08	0.81	0.54	0.67	2.56	0.27	0.81	0.	0.94	2.16	1.21	11.47
		1969	0.92	1.37	0.46	1.14	0.	3.20	0.11	0.	0.23	0.92	0.34	2.63	11.33
		1970	1.30	0.20	0.60	0.80	1.50	4.30	0.80	0.30	0.10	0.50	2.10	0.80	13.29
		1971	0.59	0.35	0.70	0.82	1.06	0.82	0.23	0.12	0.23	0.70	1.41	1.17	8.22
		1972	0.27	0.67	0.40	0.67	0.27	2.67	0.13	0.13	2.67	1.87	1.20	1.33	12.27
		1973	0.96	1.12	1.35	1.59	0.40	0.64	0.48	0.32	0.16	0.72	0.96	0.80	9.48
		1974	0.47	0.24	0.63	0.39	0.08	0.	0.47	0.	0.	1.18	0.24	0.47	4.17
		1975	0.68	0.51	0.86	1.88	1.45	0.51	0.	1.03	0.09	1.11	0.51	0.60	9.24
		1976	0.96	0.69	0.14	0.55	1.23	1.78	0.96	1.10	2.74	0.41	0.14	0.	10.69
		1977	0.36	0.24	0.24	0.12	1.31	1.07	0.60	2.02	0.36	0.	0.71	0.95	7.98
		1978	0.76	2.27	4.29	4.04	0.38	0.25	0.50	0.	1.13	0.	1.77	1.13	16.52
		1979	0.84	1.31	1.22	1.12	1.03	0.84	0.75	2.15	0.09	0.19	0.37	0.19	10.11
		1980	1.68	2.02	0.67	0.50	0.34	0.	0.17	0.	0.50	1.68	0.84	0.34	8.75
		MEAN	0.70	0.82	0.87	1.19	0.82	1.59	0.45	0.58	0.56	0.72	0.97	0.97	10.24

TABLE B-6-1; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MILL CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
2	5280														
		1964	0.	0.	0.	0.	0.	0.	0.26	0.13	0.79	0.66	0.79	1.71	4.35
		1965	0.32	0.24	0.08	0.96	1.28	0.96	0.64	0.96	0.32	0.24	1.52	0.40	7.94
		1966	0.21	0.42	0.21	0.84	0.53	0.63	0.11	0.63	0.42	0.21	0.84	1.58	6.64
		1967	0.87	0.37	1.11	2.10	1.11	2.85	0.49	0.25	0.37	0.49	0.25	0.62	10.89
		1968	0.38	1.06	0.67	0.48	0.58	3.07	0.38	1.15	0.19	0.77	1.92	1.06	11.72
		1969	1.19	1.30	0.24	1.30	0.	2.37	0.	0.	0.12	1.19	0.47	2.97	11.15
		1970	1.49	0.30	0.69	0.60	1.19	4.07	1.09	0.40	0.20	0.60	2.28	0.89	13.79
		1971	0.45	0.36	0.89	0.71	1.42	0.80	0.27	0.09	0.27	0.36	1.16	0.71	7.48
		1972	0.51	0.76	0.63	0.76	0.38	2.28	0.	0.25	2.15	2.03	1.39	1.14	12.28
		1973	0.98	1.07	1.34	1.61	0.54	0.45	0.62	0.36	0.27	0.62	1.25	1.07	10.17
		1974	0.64	0.37	0.92	0.37	0.	0.18	0.73	0.09	0.	1.56	0.37	0.73	5.96
		1975	0.82	0.59	0.94	2.81	1.52	1.05	0.	1.05	0.12	1.05	0.59	0.94	11.48
		1976	0.42	0.97	0.42	0.83	0.83	1.25	1.11	1.25	3.20	0.70	0.28	0.	11.26
		1977	0.18	0.27	0.63	0.09	0.90	0.45	0.54	1.71	0.36	0.	0.72	0.99	6.83
		1978	0.58	1.24	3.05	3.46	0.16	0.	0.25	0.74	1.57	0.16	0.74	0.66	12.62
		1979	1.11	1.62	1.52	1.01	0.30	0.51	1.21	1.11	0.	0.10	0.20	0.40	9.11
		1980	1.48	1.14	0.68	0.46	0.34	0.	0.	0.57	1.25	1.71	0.80	0.46	8.89
		MEAN	0.72	0.76	0.88	1.15	0.70	1.32	0.45	0.63	0.68	0.73	0.92	0.96	9.91

TABLE B-6-1; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MILL CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
3	5470														
		1964	0.	0.	0.	0.	0.	0.	0.38	0.19	1.15	0.96	1.15	2.49	6.31
		1965	0.67	0.50	0.17	2.01	2.68	2.01	1.34	2.01	0.67	0.50	3.18	0.84	16.59
		1966	0.25	0.50	0.25	0.99	0.62	0.75	0.12	0.75	0.50	0.25	0.99	1.86	7.83
		1967	1.13	0.48	1.45	2.75	1.45	3.72	0.65	0.32	0.48	0.65	0.32	0.81	14.22
		1968	0.47	1.28	0.82	0.58	0.70	3.74	0.47	1.40	0.23	0.93	2.33	1.28	14.24
		1969	1.50	1.65	0.30	1.65	0.	3.01	0.	0.	0.15	1.50	0.60	3.76	14.14
		1970	1.90	0.38	0.89	0.76	1.52	5.19	1.39	0.51	0.25	0.76	2.91	1.14	17.59
		1971	0.74	0.59	1.49	1.19	2.38	1.34	0.45	0.15	0.45	0.59	1.93	1.19	12.49
		1972	0.64	0.96	0.80	0.96	0.48	2.87	0.	0.32	2.71	2.55	1.75	1.43	15.44
		1973	1.32	1.43	1.79	2.15	0.72	0.60	0.84	0.48	0.36	0.84	1.67	1.43	13.63
		1974	0.72	0.41	1.02	0.41	0.	0.20	0.82	0.10	0.	1.74	0.41	0.82	6.65
		1975	0.99	0.71	1.13	3.39	1.83	1.27	0.	1.27	0.14	1.27	0.71	1.13	13.83
		1976	0.54	1.26	0.54	1.08	1.08	1.62	1.44	1.62	4.14	0.90	0.36	0.	14.59
		1977	0.27	0.41	0.96	0.14	1.37	0.68	0.82	2.60	0.55	0.	1.09	1.50	10.39
		1978	0.71	1.52	3.75	4.26	0.20	0.	0.30	0.91	1.93	0.20	0.91	0.81	15.51
		1979	1.54	2.24	2.10	1.40	0.42	0.70	1.68	1.54	0.	0.14	0.28	0.56	12.59
		1980	1.87	1.43	0.86	0.57	0.43	0.	0.	0.72	1.58	2.15	1.00	0.57	11.19
		MEAN	0.94	0.97	1.13	1.50	0.98	1.71	0.62	0.86	0.89	0.93	1.25	1.26	13.02

TABLE B-6-1; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MILL CREEK

CAN	ELEVATION	YEAR	MONTH (INCHES)												TOTAL
NO.	(FT.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
4	5780														
		1964	0.	0.	0.	0.	0.	0.	0.41	0.20	1.22	1.02	1.22	2.65	6.73
		1965	0.75	0.56	0.19	2.25	3.00	2.25	1.50	2.25	0.75	0.56	3.56	0.94	18.56
		1966	0.26	0.53	0.26	1.05	0.66	0.79	0.13	0.79	0.53	0.26	1.05	1.97	8.29
		1967	1.05	0.45	1.34	2.54	1.34	3.43	0.60	0.30	0.45	0.60	0.30	0.75	13.14
		1968	0.49	1.34	0.85	0.61	0.73	3.90	0.49	1.46	0.24	0.97	2.43	1.34	14.85
		1969	1.51	1.66	0.30	1.66	0.	3.02	0.	0.	0.15	1.51	0.60	3.77	14.19
		1970	1.92	0.38	0.90	0.77	1.54	5.25	1.41	0.51	0.26	0.77	2.95	1.15	17.81
		1971	0.70	0.56	1.39	1.12	2.23	1.25	0.42	0.14	0.42	0.56	1.81	1.12	11.71
		1972	0.61	0.91	0.76	0.91	0.46	2.74	0.	0.30	2.59	2.44	1.68	1.37	14.78
		1973	1.39	1.51	1.89	2.27	0.76	0.63	0.88	0.50	0.38	0.88	1.77	1.51	14.39
		1974	0.84	0.48	1.20	0.48	0.	0.24	0.96	0.12	0.	2.04	0.48	0.96	7.80
		1975	0.95	0.68	1.09	3.26	1.77	1.22	0.	1.22	0.14	1.22	0.68	1.09	13.31
		1976	0.42	0.97	0.42	0.83	0.83	1.25	1.11	1.25	3.20	0.70	0.28	0.	11.27
		1977	0.21	0.32	0.74	0.11	1.06	0.53	0.63	2.01	0.42	0.	0.85	1.16	8.03
		1978	0.73	1.55	3.83	4.35	0.21	0.	0.31	0.93	1.97	0.21	0.93	0.83	15.85
		1979	1.63	2.37	2.22	1.48	0.45	0.74	1.78	1.63	0.	0.15	0.30	0.59	13.35
		1980	1.94	1.49	0.90	0.60	0.45	0.	0.	0.75	1.64	2.24	1.05	0.60	11.65
		MEAN	0.96	0.99	1.14	1.52	0.97	1.70	0.63	0.85	0.85	0.95	1.29	1.28	13.11

TABLE B-6-1; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MILL CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
5	6780														
		1964	0.	0.	0.	0.	0.	0.	0.49	0.25	1.47	1.23	1.47	3.19	8.09
		1965	0.85	0.64	0.21	2.56	3.42	2.56	1.71	2.56	0.85	0.64	4.06	1.07	21.15
		1966	0.34	0.68	0.34	1.36	0.85	1.02	0.17	1.02	0.68	0.34	1.36	2.54	10.68
		1967	1.30	0.56	1.68	3.17	1.68	4.28	0.75	0.37	0.56	0.75	0.37	0.93	16.39
		1968	0.64	1.76	1.12	0.80	0.96	5.13	0.64	1.92	0.32	1.28	3.21	1.76	19.57
		1969	1.94	2.13	0.39	2.13	0.	3.88	0.	0.	0.19	1.94	0.78	4.85	18.22
		1970	2.24	0.45	1.04	0.89	1.79	6.11	1.64	0.60	0.30	0.89	3.43	1.34	20.72
		1971	0.86	0.68	1.71	1.37	2.74	1.54	0.51	0.17	0.51	0.68	2.23	1.37	14.38
		1972	0.78	1.17	0.97	1.17	0.58	3.50	0.	0.39	3.30	3.11	2.14	1.75	18.84
		1973	1.68	1.84	2.29	2.75	0.92	0.76	1.07	0.61	0.46	1.07	2.14	1.84	17.44
		1974	1.08	0.62	1.55	0.62	0.	0.31	1.24	0.15	0.	2.63	0.62	1.24	10.07
		1975	1.24	0.89	1.42	4.26	2.31	1.60	0.	1.60	0.18	1.60	0.89	1.42	17.41
		1976	0.63	1.48	0.63	1.27	1.27	1.90	1.69	1.90	4.86	1.06	0.42	0.	17.13
		1977	0.27	0.41	0.95	0.14	1.35	0.68	0.81	2.57	0.54	0.	1.08	1.49	10.29
		1978	0.69	1.47	3.63	4.12	0.20	0.	0.29	0.88	1.86	0.20	0.88	0.78	15.00
		MEAN	1.03	1.05	1.27	1.88	1.27	2.33	0.73	0.99	1.06	1.15	1.65	1.68	16.08

TABLE B-6-1; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; MILL CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
6	6360														
		1964	0.	0.	0.	0.	0.	0.	0.52	0.26	1.55	1.29	1.55	3.36	8.53
		1965	0.73	0.55	0.18	2.20	2.94	2.20	1.47	2.20	0.73	0.55	3.49	0.92	18.19
		1966	0.31	0.63	0.31	1.25	0.78	0.94	0.16	0.94	0.63	0.31	1.25	2.35	9.85
		1967	1.31	0.56	1.68	3.17	1.68	4.29	0.75	0.37	0.56	0.75	0.37	0.93	16.43
		1968	0.62	1.71	1.09	0.78	0.93	4.97	0.62	1.86	0.31	1.24	3.10	1.71	18.93
		1969	1.97	2.16	0.39	2.16	0.	3.94	0.	0.	0.20	1.97	0.79	4.92	18.50
		1970	2.16	0.43	1.01	0.87	1.73	5.92	1.59	0.58	0.29	0.87	3.32	1.30	20.06
		1971	0.84	0.67	1.67	1.34	2.67	1.50	0.50	0.17	0.50	0.67	2.17	1.34	14.04
		1972	0.70	1.06	0.88	1.06	0.53	3.17	0.	0.35	2.99	2.81	1.93	1.58	17.06
		1973	1.64	1.79	2.23	2.68	0.89	0.74	1.04	0.60	0.45	1.04	2.08	1.79	16.97
		1974	0.87	0.50	1.24	0.50	0.	0.25	0.99	0.12	0.	2.11	0.50	0.99	8.05
		1975	1.12	0.80	1.27	3.82	2.07	1.43	0.	1.43	0.16	1.43	0.80	1.27	15.61
		1976	0.53	1.24	0.53	1.06	1.06	1.59	1.41	1.59	4.07	0.88	0.35	0.	14.32
		1977	0.25	0.38	0.88	0.13	1.25	0.63	0.75	2.38	0.50	0.	1.00	1.38	9.51
		1978	0.59	1.27	3.13	3.56	0.17	0.	0.25	0.76	1.61	0.17	0.76	0.68	12.96
		1979	2.03	2.95	2.76	1.84	0.55	0.92	2.21	2.03	0.	0.18	0.37	0.74	16.58
		1980	2.35	1.81	1.08	0.72	0.54	0.	0.	0.90	1.99	2.71	1.26	0.72	14.09
		MEAN	1.12	1.15	1.27	1.71	1.12	2.05	0.72	0.97	0.98	1.12	1.49	1.54	15.23

TABLE B-6-1; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES

HYDRO-AREA; MILL CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
7	7000														
		1964	0.	0.	0.	0.	0.	0.	0.47	0.24	1.41	1.18	1.41	3.06	7.76
		1965	0.75	0.56	0.19	2.25	3.00	2.25	1.50	2.25	0.75	0.56	3.56	0.94	18.54
		1966	0.29	0.58	0.29	1.15	0.72	0.86	0.14	0.86	0.58	0.29	1.15	2.16	9.08
		1967	1.22	0.52	1.56	2.96	1.56	4.00	0.70	0.35	0.52	0.70	0.35	0.87	15.30
		1968	0.58	1.58	1.01	0.72	0.86	4.61	0.58	1.73	0.29	1.15	2.88	1.58	17.56
		1969	1.87	2.06	0.37	2.06	0.	3.74	0.	0.	0.19	1.87	0.75	4.68	17.58
		1970	1.95	0.39	0.91	0.78	1.56	5.32	1.43	0.52	0.26	0.78	2.99	1.17	18.05
		1971	0.79	0.63	1.58	1.26	2.52	1.42	0.47	0.16	0.47	0.63	2.05	1.26	13.24
		1972	0.68	1.02	0.85	1.02	0.51	3.07	0.	0.34	2.90	2.72	1.87	1.53	16.52
		1973	1.48	1.62	2.02	2.43	0.81	0.67	0.94	0.54	0.40	0.94	1.89	1.62	15.37
		1974	1.03	0.59	1.48	0.59	0.	0.30	1.18	0.15	0.	2.51	0.59	1.18	9.60
		1975	1.06	0.76	1.21	3.62	1.96	1.36	0.	1.36	0.15	1.36	0.76	1.21	14.80
		1976	0.57	1.34	0.57	1.15	1.15	1.72	1.53	1.72	4.40	0.96	0.38	0.	15.48
		1977	0.20	0.30	0.69	0.10	0.99	0.49	0.59	1.87	0.39	0.	0.79	1.08	7.49
		1978	0.66	1.42	3.50	3.98	0.19	0.	0.28	0.85	1.80	0.19	0.85	0.76	14.49
		1979	1.87	2.73	2.56	1.70	0.51	0.85	2.05	1.87	0.	0.17	0.34	0.68	15.34
		1980	2.26	1.74	1.04	0.70	0.52	0.	0.	0.87	1.91	2.61	1.22	0.70	13.57
		MEAN	1.08	1.12	1.24	1.66	1.06	1.92	0.70	0.92	0.97	1.10	1.41	1.44	14.62

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
1	6800														
		1963	0.	0.	0.	0.	0.	0.	0.09	0.26	0.62	0.79	0.70	0.88	3.34
		1964	0.50	0.	0.50	1.24	1.49	1.98	0.	0.25	0.99	0.	0.25	3.22	10.40
		1965	0.52	1.04	0.26	1.30	1.04	1.82	2.08	3.38	1.56	0.52	4.42	1.04	18.99
		1966	0.49	0.	0.24	0.98	1.47	0.49	1.47	0.24	1.95	0.	0.98	1.95	10.26
		1967	0.37	0.	0.56	1.48	1.30	2.59	2.04	0.19	1.48	0.56	0.37	0.56	11.49
		1968	0.24	1.19	0.36	0.71	0.83	2.84	0.36	2.73	0.36	0.95	1.78	0.36	12.68
		1969	0.89	0.59	0.44	0.74	0.59	4.74	0.30	0.44	0.15	1.19	0.59	1.78	12.45
		1970	0.84	0.34	0.67	0.50	0.67	0.17	1.01	1.85	0.84	0.67	3.19	2.35	13.09
		1971	0.48	1.44	1.60	3.04	0.96	2.08	0.64	0.32	0.48	0.32	1.12	0.80	13.29
		1972	0.73	0.29	0.44	0.59	0.15	1.61	0.	1.32	2.94	2.06	1.32	0.88	12.33
		1973	0.75	0.90	1.51	0.60	0.45	0.75	0.30	0.90	0.45	1.05	1.36	1.51	10.55
		1974	0.55	0.42	0.83	0.28	0.55	1.38	2.77	0.42	0.	2.77	0.69	1.52	12.18
		1975	0.90	0.34	1.52	1.45	0.83	0.62	0.69	0.28	1.03	1.45	0.41	0.48	9.99
		1976	0.42	1.06	0.	1.90	0.74	1.90	1.59	1.27	2.43	0.85	0.11	0.	12.26
		1977	0.55	0.	0.14	0.28	1.80	0.42	0.28	1.66	0.69	0.	0.42	0.69	6.93
		1978	0.37	0.56	1.76	1.95	0.28	0.09	0.46	0.	1.76	0.19	1.39	0.56	9.38
		MEAN	0.54	0.51	0.68	1.06	0.82	1.47	0.83	0.91	1.04	0.79	1.12	1.09	10.86

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
2	6520														
		1963	0.	0.	0.	0.	0.	0.	0.08	0.23	0.54	0.70	0.62	0.78	2.95
		1964	0.45	0.	0.45	1.13	1.35	1.80	0.	0.23	0.90	0.	0.23	2.93	9.46
		1965	0.46	0.92	0.23	1.15	0.92	1.61	1.84	2.98	1.38	0.46	3.90	0.92	16.75
		1966	0.41	0.	0.20	0.82	1.22	0.41	1.22	0.20	1.63	0.	0.82	1.63	8.56
		1967	0.41	0.	0.62	1.65	1.44	2.89	2.27	0.21	1.65	0.62	0.41	0.62	12.79
		1968	0.22	1.08	0.32	0.65	0.75	2.58	0.32	2.48	0.32	0.86	1.61	0.32	11.52
		1969	1.04	0.69	0.52	0.87	0.69	5.55	0.35	0.52	0.17	1.39	0.69	2.08	14.58
		1970	0.78	0.31	0.62	0.47	0.62	0.16	0.93	1.71	0.78	0.62	2.96	2.18	12.14
		1971	0.40	1.20	1.34	2.54	0.80	1.74	0.54	0.27	0.40	0.27	0.94	0.67	11.11
		1972	0.62	0.25	0.37	0.50	0.12	1.37	0.	1.12	2.49	1.74	1.12	0.75	10.45
		1973	0.60	0.71	1.19	0.48	0.36	0.60	0.24	0.71	0.36	0.83	1.07	1.19	8.33
		1974	0.41	0.31	0.61	0.20	0.41	1.02	2.04	0.31	0.	2.04	0.51	1.12	8.98
		1975	0.69	0.27	1.17	1.12	0.64	0.48	0.53	0.21	0.80	1.12	0.32	0.37	7.74
		1976	0.46	1.15	0.	2.07	0.80	2.07	1.72	1.38	2.64	0.92	0.11	0.	13.33
		1977	0.70	0.	0.18	0.35	2.29	0.53	0.35	2.11	0.88	0.	0.53	0.88	8.80
		1978	0.44	0.66	2.11	2.33	0.33	0.11	0.55	0.	2.11	0.22	1.66	0.66	11.19
		1979	1.17	1.43	0.91	0.65	1.17	0.39	0.65	2.60	0.52	0.39	1.04	0.52	11.45
		1980	0.81	0.61	0.51	0.71	0.91	0.81	0.61	0.10	1.21	0.30	1.62	0.40	8.59
		MEAN	0.59	0.56	0.67	1.04	0.87	1.42	0.79	0.96	1.04	0.70	1.12	1.01	10.78

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
3	7820														
		1963	0.	0.	0.	0.	0.	0.	0.07	0.20	0.46	0.59	0.53	0.66	2.50
		1964	0.41	0.	0.41	1.04	1.24	1.66	0.	0.21	0.83	0.	0.21	2.70	8.71
		1965	0.39	0.79	0.20	0.98	0.79	1.38	1.57	2.56	1.18	0.39	3.34	0.79	14.35
		1966	0.32	0.	0.16	0.64	0.96	0.32	0.96	0.16	1.28	0.	0.64	1.28	6.74
		1967	0.40	0.	0.60	1.59	1.39	2.78	2.18	0.20	1.59	0.60	0.40	0.60	12.31
		1968	0.29	1.47	0.44	0.88	1.03	3.52	0.44	3.38	0.44	1.17	2.20	0.44	15.71
		1969	0.95	0.63	0.48	0.79	0.63	5.07	0.32	0.48	0.16	1.27	0.63	1.90	13.32
		1970	1.00	0.40	0.80	0.60	0.80	0.20	1.20	2.19	1.00	0.80	3.79	2.79	15.56
		1971	0.40	1.19	1.32	2.51	0.79	1.72	0.53	0.26	0.40	0.26	0.92	0.66	10.95
		1972	0.77	0.31	0.46	0.61	0.15	1.68	0.	1.38	3.06	2.14	1.38	0.92	12.86
		1973	0.70	0.84	1.40	0.56	0.42	0.70	0.28	0.84	0.42	0.98	1.26	1.40	9.78
		1974	0.69	0.52	1.03	0.34	0.69	1.72	3.44	0.52	0.	3.44	0.86	1.89	15.14
		1975	1.22	0.47	2.06	1.96	1.12	0.84	0.94	0.37	1.40	1.96	0.56	0.65	13.56
		1976	0.41	1.02	0.	1.84	0.71	1.84	1.53	1.22	2.35	0.82	0.10	0.	11.84
		1977	0.65	0.	0.16	0.32	2.10	0.49	0.32	1.94	0.81	0.	0.49	0.81	8.09
		1978	0.36	0.55	1.73	1.91	0.27	0.09	0.45	0.	1.73	0.18	1.36	0.55	9.19
		MEAN	0.60	0.55	0.74	1.10	0.87	1.59	0.88	0.99	1.07	0.90	1.16	1.12	11.58

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
4	7160														
		1963	0.	0.	0.	0.	0.	0.	0.10	0.29	0.66	0.86	0.76	0.95	3.61
		1964	0.53	0.	0.53	1.32	1.59	2.12	0.	0.26	1.06	0.	0.26	3.44	11.11
		1965	0.50	1.00	0.25	1.25	1.00	1.76	2.01	3.26	1.50	0.50	4.26	1.00	18.31
		1966	0.42	0.	0.21	0.85	1.27	0.42	1.27	0.21	1.70	0.	0.85	1.70	8.92
		1967	0.43	0.	0.64	1.71	1.50	3.00	2.36	0.21	1.71	0.64	0.43	0.64	13.29
		1968	0.27	1.36	0.41	0.82	0.95	3.26	0.41	3.13	0.41	1.09	2.04	0.41	14.54
		1969	0.87	0.58	0.44	0.73	0.58	4.66	0.29	0.44	0.15	1.17	0.58	1.75	12.24
		1970	1.13	0.45	0.91	0.68	0.91	0.23	1.36	2.49	1.13	0.91	4.31	3.18	17.69
		1971	0.46	1.37	1.52	2.89	0.91	1.98	0.61	0.30	0.46	0.30	1.06	0.76	12.62
		1972	0.90	0.36	0.54	0.72	0.18	1.99	0.	1.63	3.61	2.53	1.63	1.08	15.18
		1973	0.74	0.89	1.49	0.60	0.45	0.74	0.30	0.89	0.45	1.04	1.34	1.49	10.42
		1974	0.61	0.46	0.92	0.31	0.61	1.53	3.07	0.46	0.	3.07	0.77	1.69	13.50
		1975	1.00	0.39	1.69	1.62	0.92	0.69	0.77	0.31	1.16	1.62	0.46	0.54	11.17
		1976	0.44	1.09	0.	1.96	0.76	1.96	1.63	1.31	2.51	0.87	0.11	0.	12.64
		1977	0.71	0.	0.18	0.35	2.31	0.53	0.35	2.13	0.89	0.	0.53	0.89	8.87
		1978	0.38	0.57	1.81	2.00	0.29	0.10	0.48	0.	1.81	0.19	1.43	0.57	9.63
		MEAN	0.63	0.57	0.77	1.18	0.94	1.66	0.93	1.08	1.19	0.92	1.29	1.25	12.42

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
5	6560														
		1963	0.	0.	0.	0.	0.	0.	0.08	0.25	0.58	0.74	0.66	0.83	3.14
		1964	0.47	0.	0.47	1.17	1.41	1.87	0.	0.23	0.94	0.	0.23	3.05	9.84
		1965	0.42	0.85	0.21	1.06	0.85	1.48	1.69	2.75	1.27	0.42	3.60	0.85	15.46
		1966	0.41	0.	0.21	0.83	1.24	0.41	1.24	0.21	1.65	0.	0.83	1.65	8.67
		1967	0.45	0.	0.67	1.78	1.56	3.12	2.45	0.22	1.78	0.67	0.45	0.67	13.81
		1968	0.27	1.33	0.40	0.80	0.93	3.20	0.40	3.06	0.40	1.07	2.00	0.40	14.25
		1969	0.91	0.60	0.45	0.76	0.60	4.84	0.30	0.45	0.15	1.21	0.60	1.81	12.70
		1970	0.77	0.31	0.62	0.46	0.62	0.15	0.92	1.70	0.77	0.62	2.93	2.16	12.02
		1971	0.47	1.41	1.57	2.98	0.94	2.04	0.63	0.31	0.47	0.31	1.10	0.78	13.02
		1972	0.67	0.27	0.40	0.53	0.13	1.47	0.	1.20	2.66	1.87	1.20	0.80	11.19
		1973	0.64	0.76	1.27	0.51	0.38	0.64	0.25	0.76	0.38	0.89	1.14	1.27	8.89
		1974	0.51	0.38	0.76	0.25	0.51	1.27	2.55	0.38	0.	2.55	0.64	1.40	11.20
		1975	0.86	0.33	1.46	1.39	0.80	0.60	0.66	0.27	1.00	1.39	0.40	0.46	9.63
		1976	0.43	1.09	0.	1.96	0.76	1.96	1.63	1.30	2.50	0.87	0.11	0.	12.60
		1977	0.64	0.	0.16	0.32	2.07	0.48	0.32	1.91	0.79	0.	0.48	0.79	7.95
		1978	0.38	0.58	1.82	2.01	0.29	0.10	0.48	0.	1.82	0.19	1.44	0.58	9.69
		MEAN	0.56	0.53	0.70	1.12	0.88	1.58	0.86	0.95	1.08	0.81	1.12	1.10	11.29

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
6	6800														
		1963	0.	0.	0.	0.	0.	0.	0.10	0.29	0.67	0.87	0.77	0.96	3.66
		1964	0.51	0.	0.51	1.27	1.52	2.03	0.	0.25	1.02	0.	0.25	3.30	10.67
		1965	0.40	0.80	0.20	1.00	0.80	1.40	1.60	2.60	1.20	0.40	3.40	0.80	14.59
		1966	0.31	0.	0.16	0.62	0.94	0.31	0.94	0.16	1.25	0.	0.62	1.25	6.56
		1967	0.42	0.	0.63	1.67	1.46	2.93	2.30	0.21	1.67	0.63	0.42	0.63	12.96
		1968	0.27	1.33	0.40	0.80	0.93	3.20	0.40	3.07	0.40	1.07	2.00	0.40	14.28
		1969	0.92	0.62	0.46	0.77	0.62	4.93	0.31	0.46	0.15	1.23	0.62	1.85	12.93
		1970	1.00	0.40	0.80	0.60	0.80	0.20	1.20	2.21	1.00	0.80	3.81	2.81	15.64
		1971	0.43	1.30	1.45	2.75	0.87	1.88	0.58	0.29	0.43	0.29	1.01	0.72	12.03
		1972	0.84	0.34	0.51	0.67	0.17	1.86	0.	1.52	3.37	2.36	1.52	1.01	14.17
		1973	0.69	0.83	1.39	0.55	0.42	0.69	0.28	0.83	0.42	0.97	1.25	1.39	9.70
		1974	0.53	0.40	0.80	0.27	0.53	1.33	2.67	0.40	0.	2.67	0.67	1.47	11.73
		1975	0.92	0.35	1.56	1.49	0.85	0.64	0.71	0.28	1.06	1.49	0.42	0.50	10.26
		1976	0.50	1.24	0.	2.23	0.87	2.23	1.86	1.49	2.85	0.99	0.12	0.	14.36
		1977	0.62	0.	0.15	0.31	2.02	0.46	0.31	1.86	0.77	0.	0.46	0.77	7.75
		1978	0.40	0.60	1.89	2.09	0.30	0.10	0.50	0.	1.89	0.20	1.49	0.60	10.06
		1979	1.09	1.34	0.85	0.61	1.09	0.36	0.61	2.43	0.49	0.36	0.97	0.49	10.70
		1980	0.82	0.62	0.52	0.72	0.93	0.82	0.62	0.10	1.24	0.31	1.65	0.41	8.76
		MEAN	0.62	0.59	0.72	1.09	0.89	1.50	0.83	1.02	1.10	0.81	1.19	1.08	11.45

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
7	7400														
		1963	0.	0.	0.	0.	0.	0.	0.09	0.26	0.60	0.77	0.68	0.86	3.25
		1964	0.40	0.	0.40	1.01	1.21	1.62	0.	0.20	0.81	0.	0.20	2.62	8.48
		1965	0.41	0.82	0.21	1.03	0.82	1.44	1.64	2.67	1.23	0.41	3.50	0.82	15.01
		1966	0.38	0.	0.19	0.75	1.13	0.38	1.13	0.19	1.51	0.	0.75	1.51	7.91
		1967	0.42	0.	0.63	1.67	1.47	2.93	2.30	0.21	1.67	0.63	0.42	0.63	12.98
		1968	0.28	1.40	0.42	0.84	0.98	3.37	0.42	3.23	0.42	1.12	2.11	0.42	15.03
		1969	0.86	0.57	0.43	0.71	0.57	4.57	0.29	0.43	0.14	1.14	0.57	1.71	11.99
		1970	0.97	0.39	0.78	0.58	0.78	0.19	1.17	2.14	0.97	0.78	3.70	2.72	15.17
		1971	0.26	0.79	0.87	1.66	0.52	1.13	0.35	0.17	0.26	0.17	0.61	0.44	7.24
		1972	0.67	0.27	0.40	0.53	0.13	1.47	0.	1.20	2.67	1.87	1.20	0.80	11.23
		1973	0.71	0.85	1.41	0.57	0.42	0.71	0.28	0.85	0.42	0.99	1.27	1.41	9.89
		1974	0.51	0.39	0.77	0.26	0.51	1.29	2.57	0.39	0.	2.57	0.64	1.41	11.31
		1975	0.93	0.36	1.57	1.50	0.86	0.64	0.71	0.29	1.07	1.50	0.43	0.50	10.34
		1976	0.48	1.19	0.	2.15	0.84	2.15	1.79	1.43	2.75	0.96	0.12	0.	13.86
		1977	0.74	0.	0.19	0.37	2.41	0.56	0.37	2.22	0.93	0.	0.56	0.93	9.27
		1978	0.36	0.54	1.70	1.88	0.27	0.09	0.45	0.	1.70	0.18	1.34	0.54	9.05
		MEAN	0.56	0.51	0.67	1.04	0.86	1.50	0.85	0.99	1.07	0.82	1.13	1.08	11.09

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
8	6810														
		1963	0.	0.	0.	0.	0.	0.	0.09	0.27	0.64	0.82	0.73	0.91	3.47
		1964	0.48	0.	0.48	1.20	1.44	1.92	0.	0.24	0.96	0.	0.24	3.11	10.06
		1965	0.38	0.77	0.19	0.96	0.77	1.35	1.54	2.50	1.15	0.38	3.27	0.77	14.03
		1966	0.40	0.	0.20	0.79	1.19	0.40	1.19	0.20	1.59	0.	0.79	1.59	8.33
		1967	0.35	0.	0.52	1.39	1.21	2.43	1.91	0.17	1.39	0.52	0.35	0.52	10.76
		1968	0.27	1.34	0.40	0.80	0.94	3.21	0.40	3.07	0.40	1.07	2.00	0.40	14.30
		1969	0.92	0.61	0.46	0.76	0.61	4.89	0.31	0.46	0.15	1.22	0.61	1.83	12.83
		1970	0.89	0.36	0.71	0.54	0.71	0.18	1.07	1.96	0.89	0.71	3.39	2.50	13.93
		1971	0.38	1.14	1.27	2.41	0.76	1.65	0.51	0.25	0.38	0.25	0.89	0.63	10.52
		1972	0.63	0.25	0.38	0.50	0.13	1.39	0.	1.13	2.52	1.77	1.13	0.76	10.59
		1973	0.77	0.92	1.53	0.61	0.46	0.77	0.31	0.92	0.46	1.07	1.38	1.53	10.74
		1974	0.53	0.40	0.79	0.26	0.53	1.32	2.64	0.40	0.	2.64	0.66	1.45	11.60
		1975	0.90	0.35	1.53	1.46	0.83	0.63	0.69	0.28	1.04	1.46	0.42	0.49	10.07
		1976	0.51	1.27	0.	2.28	0.89	2.28	1.90	1.52	2.92	1.01	0.13	0.	14.71
		1977	0.69	0.	0.17	0.35	2.25	0.52	0.35	2.08	0.87	0.	0.52	0.87	8.67
		1978	0.44	0.66	2.07	2.29	0.33	0.11	0.55	0.	2.07	0.22	1.64	0.66	11.03
		MEAN	0.57	0.54	0.71	1.10	0.87	1.53	0.84	0.97	1.09	0.82	1.13	1.12	11.30

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
9	6620														
		1963	0.	0.	0.	0.	0.	0.	0.09	0.27	0.62	0.80	0.71	0.88	3.36
		1964	0.48	0.	0.48	1.21	1.45	1.93	0.	0.24	0.97	0.	0.24	3.14	10.14
		1965	0.42	0.85	0.21	1.06	0.85	1.49	1.70	2.76	1.27	0.42	3.61	0.85	15.51
		1966	0.44	0.	0.22	0.87	1.31	0.44	1.31	0.22	1.74	0.	0.87	1.74	9.14
		1967	0.42	0.	0.62	1.66	1.46	2.91	2.29	0.21	1.66	0.62	0.42	0.62	12.90
		1968	0.25	1.26	0.38	0.76	0.88	3.02	0.38	2.90	0.38	1.01	1.89	0.38	13.47
		1969	0.85	0.57	0.43	0.71	0.57	4.54	0.28	0.43	0.14	1.13	0.57	1.70	11.91
		1970	0.77	0.31	0.61	0.46	0.61	0.15	0.92	1.68	0.77	0.61	2.91	2.14	11.94
		1971	0.42	1.25	1.39	2.64	0.83	1.81	0.56	0.28	0.42	0.28	0.97	0.70	11.55
		1972	0.77	0.31	0.46	0.62	0.15	1.70	0.	1.39	3.08	2.16	1.39	0.93	12.95
		1973	0.74	0.89	1.48	0.59	0.44	0.74	0.30	0.89	0.44	1.03	1.33	1.48	10.35
		1974	0.54	0.41	0.82	0.27	0.54	1.36	2.72	0.41	0.	2.72	0.68	1.50	11.98
		1975	0.92	0.35	1.56	1.48	0.85	0.64	0.71	0.28	1.06	1.48	0.42	0.49	10.25
		1976	0.42	1.04	0.	1.88	0.73	1.88	1.56	1.25	2.40	0.83	0.10	0.	12.09
		1977	0.69	0.	0.17	0.34	2.24	0.52	0.34	2.07	0.86	0.	0.52	0.86	8.62
		1978	0.38	0.57	1.82	2.01	0.29	0.10	0.48	0.	1.82	0.19	1.44	0.57	9.67
		1979	1.21	1.48	0.94	0.67	1.21	0.40	0.67	2.70	0.54	0.40	1.08	0.54	11.87
		1980	0.90	0.68	0.57	0.79	1.02	0.90	0.68	0.11	1.36	0.34	1.81	0.45	9.61
		MEAN	0.62	0.58	0.71	1.06	0.91	1.45	0.83	1.00	1.09	0.78	1.16	1.06	11.26

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
10	6750														
		1963	0.	0.	0.	0.	0.	0.	0.08	0.25	0.59	0.76	0.68	0.84	3.21
		1964	0.45	0.	0.45	1.13	1.36	1.81	0.	0.23	0.91	0.	0.23	2.95	9.52
		1965	0.43	0.85	0.21	1.07	0.85	1.49	1.70	2.77	1.28	0.43	3.62	0.85	15.55
		1966	0.42	0.	0.21	0.84	1.27	0.42	1.27	0.21	1.69	0.	0.84	1.69	8.86
		1967	0.36	0.	0.54	1.43	1.25	2.50	1.97	0.18	1.43	0.54	0.36	0.54	11.09
		1968	0.25	1.26	0.38	0.76	0.88	3.03	0.38	2.90	0.38	1.01	1.89	0.38	13.51
		1969	0.98	0.65	0.49	0.82	0.65	5.23	0.33	0.49	0.16	1.31	0.65	1.96	13.74
		1970	0.76	0.30	0.61	0.45	0.61	0.15	0.91	1.67	0.76	0.61	2.88	2.12	11.82
		1971	0.41	1.23	1.36	2.59	0.82	1.77	0.54	0.27	0.41	0.27	0.95	0.68	11.30
		1972	0.76	0.30	0.46	0.61	0.15	1.67	0.	1.37	3.04	2.13	1.37	0.91	12.77
		1973	0.63	0.76	1.26	0.50	0.38	0.63	0.25	0.76	0.38	0.88	1.14	1.26	8.83
		1974	0.53	0.40	0.80	0.27	0.53	1.33	2.66	0.40	0.	2.66	0.67	1.47	11.72
		1975	0.92	0.35	1.55	1.48	0.85	0.63	0.70	0.28	1.06	1.48	0.42	0.49	10.22
		1976	0.50	1.25	0.	2.25	0.88	2.25	1.88	1.50	2.88	1.00	0.13	0.	14.53
		1977	0.77	0.	0.19	0.39	2.51	0.58	0.39	2.31	0.96	0.	0.58	0.96	9.64
		1978	0.43	0.64	2.04	2.26	0.32	0.11	0.54	0.	2.04	0.21	1.61	0.64	10.85
		1979	0.89	1.08	0.69	0.49	0.89	0.30	0.49	1.97	0.39	0.30	0.79	0.39	8.68
		1980	0.90	0.67	0.56	0.78	1.01	0.90	0.67	0.11	1.34	0.34	1.79	0.45	9.52
		MEAN	0.61	0.57	0.70	1.07	0.89	1.46	0.82	0.98	1.09	0.77	1.15	1.03	11.15

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
11	7000														
		1963	0.	0.	0.	0.	0.	0.	0.07	0.22	0.52	0.67	0.59	0.74	2.82
		1964	0.48	0.	0.48	1.19	1.43	1.91	0.	0.24	0.96	0.	0.24	3.10	10.03
		1965	0.41	0.83	0.21	1.03	0.83	1.45	1.65	2.69	1.24	0.41	3.52	0.83	15.10
		1966	0.49	0.	0.24	0.97	1.46	0.49	1.46	0.24	1.95	0.	0.97	1.95	10.22
		1967	0.38	0.	0.57	1.51	1.32	2.64	2.07	0.19	1.51	0.57	0.38	0.57	11.68
		1968	0.28	1.40	0.42	0.84	0.98	3.36	0.42	3.22	0.42	1.12	2.10	0.42	14.99
		1969	0.96	0.64	0.48	0.80	0.64	5.13	0.32	0.48	0.16	1.28	0.64	1.92	13.46
		1970	0.98	0.39	0.79	0.59	0.79	0.20	1.18	2.16	0.98	0.79	3.73	2.75	15.32
		1971	0.45	1.34	1.49	2.84	0.90	1.94	0.60	0.30	0.45	0.30	1.04	0.75	12.39
		1972	0.83	0.33	0.50	0.67	0.17	1.83	0.	1.50	3.33	2.33	1.50	1.00	13.97
		1973	0.82	0.99	1.65	0.66	0.49	0.82	0.33	0.99	0.49	1.15	1.48	1.65	11.54
		1974	0.53	0.40	0.80	0.27	0.53	1.34	2.67	0.40	0.	2.67	0.67	1.47	11.75
		1975	0.93	0.36	1.57	1.50	0.86	0.64	0.71	0.29	1.07	1.50	0.43	0.50	10.34
		1976	0.50	1.26	0.	2.26	0.88	2.26	1.89	1.51	2.89	1.01	0.13	0.	14.59
		1977	0.85	0.	0.21	0.43	2.77	0.64	0.43	2.56	1.07	0.	0.64	1.07	10.66
		1978	0.46	0.68	2.17	2.39	0.34	0.11	0.57	0.	2.17	0.23	1.71	0.68	11.51
		1979	1.08	1.32	0.84	0.60	1.08	0.36	0.60	2.41	0.48	0.36	0.96	0.48	10.59
		1980	0.89	0.67	0.56	0.78	1.00	0.89	0.67	0.11	1.33	0.33	1.78	0.44	9.45
		MEAN	0.66	0.62	0.76	1.13	0.96	1.53	0.87	1.08	1.16	0.82	1.25	1.12	11.96

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL (IN.)
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
12	6750	1963	0.	0.	0.	0.	0.	0.	0.06	0.18	0.43	0.55	0.49	0.61	2.33
		1964	0.36	0.	0.36	0.90	1.08	1.44	0.	0.18	0.72	0.	0.18	2.34	7.57
		1965	0.17	0.35	0.09	0.44	0.35	0.61	0.70	1.13	0.52	0.17	1.48	0.35	6.36
		1966	0.26	0.	0.13	0.52	0.77	0.26	0.77	0.13	1.03	0.	0.52	1.03	5.41
		1967	0.27	0.	0.41	1.10	0.96	1.92	1.51	0.14	1.10	0.41	0.27	0.41	8.52
		1968	0.21	1.03	0.31	0.62	0.72	2.46	0.31	2.36	0.31	0.82	1.54	0.31	10.97
		1969	0.72	0.48	0.36	0.60	0.48	3.86	0.24	0.36	0.12	0.97	0.48	1.45	10.14
		1970	0.56	0.23	0.45	0.34	0.45	0.11	0.68	1.24	0.56	0.45	2.15	1.58	8.81
		1971	0.30	0.89	0.99	1.88	0.59	1.29	0.40	0.20	0.30	0.20	0.69	0.50	8.22
		1972	0.69	0.27	0.41	0.55	0.14	1.51	0.	1.23	2.74	1.92	1.23	0.82	11.51
		1973	0.71	0.85	1.41	0.57	0.42	0.71	0.28	0.85	0.42	0.99	1.27	1.41	9.89
		1974	0.54	0.40	0.81	0.27	0.54	1.34	2.69	0.40	0.	2.69	0.67	1.48	11.82
		1975	0.92	0.35	1.56	1.49	0.85	0.64	0.71	0.28	1.06	1.49	0.42	0.50	10.27
		1976	0.46	1.14	0.	2.06	0.80	2.06	1.71	1.37	2.63	0.91	0.11	0.	13.26
		1977	0.72	0.	0.18	0.36	2.34	0.54	0.36	2.16	0.90	0.	0.54	0.90	8.99
		1978	0.36	0.53	1.69	1.87	0.27	0.09	0.45	0.	1.69	0.18	1.34	0.53	9.00
		MEAN	0.49	0.45	0.62	0.92	0.73	1.27	0.69	0.78	0.92	0.74	0.86	0.90	9.38

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
13	7200	1963	0.	0.	0.	0.	0.	0.	0.07	0.22	0.51	0.66	0.59	0.73	2.79
		1964	0.42	0.	0.42	1.05	1.26	1.68	0.	0.21	0.84	0.	0.21	2.73	8.81
		1965	0.36	0.71	0.18	0.89	0.71	1.25	1.43	2.32	1.07	0.36	3.04	0.71	13.04
		1966	0.45	0.	0.23	0.90	1.36	0.45	1.36	0.23	1.81	0.	0.90	1.81	9.50
		1967	0.39	0.	0.59	1.56	1.37	2.73	2.15	0.20	1.56	0.59	0.39	0.59	12.10
		1968	0.29	1.45	0.44	0.87	1.02	3.49	0.44	3.34	0.44	1.16	2.18	0.44	15.54
		1969	1.08	0.72	0.54	0.90	0.72	5.77	0.36	0.54	0.18	1.44	0.72	2.16	15.14
		1970	0.90	0.36	0.72	0.54	0.72	0.18	1.08	1.99	0.90	0.72	3.43	2.53	14.09
		1971	0.47	1.41	1.56	2.97	0.94	2.03	0.62	0.31	0.47	0.31	1.09	0.78	12.96
		1972	0.87	0.35	0.52	0.70	0.17	1.91	0.	1.57	3.48	2.44	1.57	1.04	14.61
		1973	0.79	0.95	1.58	0.63	0.48	0.79	0.32	0.95	0.48	1.11	1.43	1.58	11.09
		1974	0.59	0.44	0.89	0.30	0.59	1.48	2.95	0.44	0.	2.95	0.74	1.62	12.99
		1975	1.03	0.40	1.75	1.67	0.95	0.72	0.79	0.32	1.19	1.67	0.48	0.56	11.52
		1976	0.52	1.31	0.	2.35	0.91	2.35	1.96	1.57	3.00	1.04	0.13	0.	15.14
		1977	0.75	0.	0.19	0.38	2.45	0.57	0.38	2.26	0.94	0.	0.57	0.94	9.42
		1978	0.39	0.59	1.87	2.06	0.29	0.10	0.49	0.	1.87	0.20	1.47	0.59	9.93
		MEAN	0.61	0.57	0.76	1.17	0.92	1.67	0.89	1.01	1.16	0.91	1.16	1.16	11.99

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
14	7060														
		1963	0.	0.	0.	0.	0.	0.	0.08	0.24	0.56	0.72	0.64	0.80	3.03
		1964	0.42	0.	0.42	1.05	1.25	1.67	0.	0.21	0.84	0.	0.21	2.72	8.78
		1965	0.29	0.59	0.15	0.74	0.59	1.03	1.18	1.91	0.88	0.29	2.50	0.59	10.75
		1966	0.36	0.	0.18	0.72	1.07	0.36	1.07	0.18	1.43	0.	0.72	1.43	7.51
		1967	0.39	0.	0.59	1.57	1.37	2.75	2.16	0.20	1.57	0.59	0.39	0.59	12.16
		1968	0.29	1.45	0.43	0.87	1.01	3.47	0.43	3.33	0.43	1.16	2.17	0.43	15.49
		1969	0.97	0.65	0.49	0.81	0.65	5.20	0.32	0.49	0.16	1.30	0.65	1.95	13.64
		1970	0.77	0.31	0.62	0.46	0.62	0.15	0.92	1.69	0.77	0.62	2.93	2.16	12.01
		1971	0.36	1.09	1.21	2.29	0.72	1.57	0.48	0.24	0.36	0.24	0.84	0.60	10.01
		1972	0.72	0.29	0.43	0.58	0.14	1.58	0.	1.30	2.88	2.01	1.30	0.86	12.09
		1973	0.66	0.79	1.32	0.53	0.40	0.66	0.26	0.79	0.40	0.93	1.19	1.32	9.27
		1974	0.55	0.41	0.83	0.27	0.55	1.38	2.75	0.41	0.	2.75	0.69	1.51	12.10
		1975	0.96	0.37	1.62	1.55	0.89	0.66	0.74	0.30	1.11	1.55	0.44	0.52	10.70
		1976	0.42	1.05	0.	1.90	0.74	1.90	1.58	1.27	2.42	0.84	0.11	0.	12.23
		1977	0.72	0.	0.18	0.36	2.32	0.54	0.36	2.15	0.89	0.	0.54	0.89	8.94
		1978	0.45	0.68	2.16	2.38	0.34	0.11	0.57	0.	2.16	0.23	1.70	0.68	11.47
		MEAN	0.56	0.52	0.71	1.08	0.85	1.54	0.81	0.92	1.06	0.83	1.07	1.07	11.02

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
15	7080														
		1963	0.	0.	0.	0.	0.	0.	0.07	0.21	0.49	0.63	0.56	0.70	2.67
		1964	0.36	0.	0.36	0.89	1.07	1.43	0.	0.18	0.72	0.	0.18	2.32	7.51
		1965	0.29	0.57	0.14	0.71	0.57	1.00	1.14	1.85	0.86	0.29	2.42	0.57	10.41
		1966	0.39	0.	0.20	0.78	1.17	0.39	1.17	0.20	1.56	0.	0.78	1.56	8.20
		1967	0.35	0.	0.52	1.40	1.22	2.45	1.92	0.17	1.40	0.52	0.35	0.52	10.83
		1968	0.24	1.22	0.37	0.73	0.85	2.92	0.37	2.80	0.37	0.97	1.83	0.37	13.04
		1969	0.90	0.60	0.45	0.75	0.60	4.78	0.30	0.45	0.15	1.20	0.60	1.79	12.56
		1970	0.70	0.28	0.56	0.42	0.56	0.14	0.84	1.53	0.70	0.56	2.65	1.95	10.86
		1971	0.42	1.27	1.41	2.68	0.85	1.83	0.56	0.28	0.42	0.28	0.99	0.70	11.69
		1972	0.67	0.27	0.40	0.54	0.13	1.47	0.	1.20	2.68	1.87	1.20	0.80	11.24
		1973	0.70	0.84	1.41	0.56	0.42	0.70	0.28	0.84	0.42	0.98	1.27	1.41	9.85
		1974	0.60	0.45	0.90	0.30	0.60	1.49	2.99	0.45	0.	2.99	0.75	1.64	13.14
		1975	0.97	0.37	1.64	1.57	0.90	0.67	0.75	0.30	1.12	1.57	0.45	0.52	10.82
		1976	0.43	1.08	0.	1.94	0.75	1.94	1.61	1.29	2.47	0.86	0.11	0.	12.48
		1977	0.78	0.	0.20	0.39	2.54	0.59	0.39	2.34	0.98	0.	0.59	0.98	9.76
		1978	0.40	0.61	1.92	2.12	0.30	0.10	0.51	0.	1.92	0.20	1.52	0.61	10.22
		1979	0.98	1.19	0.76	0.54	0.98	0.33	0.54	2.17	0.43	0.33	0.87	0.43	9.54
		1980	0.83	0.62	0.52	0.73	0.93	0.83	0.62	0.10	1.24	0.31	1.66	0.41	8.81
		MEAN	0.59	0.55	0.69	1.01	0.85	1.37	0.78	0.91	1.00	0.76	1.04	0.97	10.51

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
16	7480														
		1963	0.	0.	0.	0.	0.	0.	0.12	0.35	0.82	1.05	0.93	1.17	4.44
		1964	0.48	0.	0.48	1.19	1.43	1.91	0.	0.24	0.96	0.	0.24	3.10	10.03
		1965	0.53	1.06	0.26	1.32	1.06	1.85	2.11	3.44	1.59	0.53	4.49	1.06	19.29
		1966	0.52	0.	0.26	1.03	1.55	0.52	1.55	0.26	2.07	0.	1.03	2.07	10.86
		1967	0.48	0.	0.73	1.93	1.69	3.38	2.66	0.24	1.93	0.73	0.48	0.73	14.99
		1968	0.30	1.48	0.44	0.89	1.04	3.56	0.44	3.41	0.44	1.19	2.22	0.44	15.87
		1969	1.09	0.72	0.54	0.91	0.72	5.80	0.36	0.54	0.18	1.45	0.72	2.17	15.22
		1970	0.83	0.33	0.67	0.50	0.67	0.17	1.00	1.83	0.83	0.67	3.16	2.33	12.99
		1971	0.46	1.39	1.55	2.94	0.93	2.01	0.62	0.31	0.46	0.31	1.08	0.77	12.83
		1972	0.64	0.26	0.38	0.51	0.13	1.40	0.	1.15	2.55	1.79	1.15	0.77	10.72
		1973	0.75	0.90	1.50	0.60	0.45	0.75	0.30	0.90	0.45	1.05	1.35	1.50	10.49
		1974	0.68	0.51	1.01	0.34	0.68	1.69	3.38	0.51	0.	3.38	0.84	1.86	14.87
		1975	1.15	0.44	1.95	1.86	1.06	0.80	0.88	0.35	1.33	1.86	0.53	0.62	12.82
		1976	0.42	1.04	0.	1.87	0.73	1.87	1.56	1.25	2.39	0.83	0.10	0.	12.05
		1977	0.72	0.	0.18	0.36	2.33	0.54	0.36	2.16	0.90	0.	0.54	0.90	8.98
		1978	0.44	0.66	2.09	2.31	0.33	0.11	0.55	0.	2.09	0.22	1.65	0.66	11.10
		1979	0.96	1.17	0.75	0.53	0.96	0.32	0.53	2.14	0.43	0.32	0.85	0.43	9.40
		1980	0.99	0.74	0.62	0.87	1.11	0.99	0.74	0.12	1.48	0.37	1.98	0.49	10.51
		MEAN	0.67	0.63	0.78	1.16	0.98	1.61	0.95	1.06	1.15	0.87	1.29	1.16	12.31

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
17	7020														
		1963	0.	0.	0.	0.	0.	0.	0.08	0.23	0.54	0.69	0.61	0.77	2.92
		1964	0.44	0.	0.44	1.10	1.32	1.75	0.	0.22	0.88	0.	0.22	2.85	9.21
		1965	0.51	1.01	0.25	1.27	1.01	1.77	2.03	3.29	1.52	0.51	4.31	1.01	18.49
		1966	0.52	0.	0.26	1.03	1.55	0.52	1.55	0.26	2.07	0.	1.03	2.07	10.86
		1967	0.42	0.	0.63	1.67	1.47	2.93	2.30	0.21	1.67	0.63	0.42	0.63	12.98
		1968	0.27	1.37	0.41	0.82	0.96	3.28	0.41	3.15	0.41	1.09	2.05	0.41	14.64
		1969	1.13	0.75	0.56	0.94	0.75	6.01	0.38	0.56	0.19	1.50	0.75	2.25	15.77
		1970	0.85	0.34	0.68	0.51	0.68	0.17	1.02	1.86	0.85	0.68	3.22	2.37	13.20
		1971	0.51	1.53	1.70	3.24	1.02	2.21	0.68	0.34	0.51	0.34	1.19	0.85	14.14
		1972	0.86	0.34	0.51	0.69	0.17	1.88	0.	1.54	3.43	2.40	1.54	1.03	14.39
		1973	0.66	0.80	1.33	0.53	0.40	0.66	0.27	0.80	0.40	0.93	1.19	1.33	9.28
		1974	0.62	0.46	0.93	0.31	0.62	1.55	3.09	0.46	0.	3.09	0.77	1.70	13.61
		1975	1.10	0.42	1.86	1.78	1.01	0.76	0.85	0.34	1.27	1.78	0.51	0.59	12.26
		1976	0.53	1.32	0.	2.38	0.92	2.38	1.98	1.58	3.04	1.06	0.13	0.	15.31
		1977	0.87	0.	0.22	0.43	2.82	0.65	0.43	2.60	1.08	0.	0.65	1.08	10.84
		1978	0.48	0.72	2.29	2.53	0.36	0.12	0.60	0.	2.29	0.24	1.81	0.72	12.16
		MEAN	0.65	0.61	0.80	1.27	1.00	1.77	0.98	1.09	1.25	0.93	1.28	1.23	12.85

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES)												TOTAL
			JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	(IN.)
18	7000														
		1963	0.	0.	0.	0.	0.	0.	0.08	0.23	0.53	0.68	0.61	0.76	2.88
		1964	0.36	0.	0.36	0.91	1.09	1.46	0.	0.18	0.73	0.	0.18	2.36	7.64
		1965	0.47	0.95	0.24	1.19	0.95	1.66	1.90	3.08	1.42	0.47	4.03	0.95	17.32
		1966	0.50	0.	0.25	1.01	1.51	0.50	1.51	0.25	2.01	0.	1.01	2.01	10.56
		1967	0.38	0.	0.58	1.54	1.35	2.69	2.12	0.19	1.54	0.58	0.38	0.58	11.93
		1968	0.27	1.37	0.41	0.82	0.96	3.29	0.41	3.15	0.41	1.10	2.06	0.41	14.67
		1969	0.98	0.65	0.49	0.81	0.65	5.21	0.33	0.49	0.16	1.30	0.65	1.95	13.68
		1970	0.76	0.30	0.60	0.45	0.60	0.15	0.91	1.66	0.76	0.60	2.87	2.11	11.78
		1971	0.40	1.20	1.34	2.54	0.80	1.74	0.53	0.27	0.40	0.27	0.94	0.67	11.10
		1972	0.70	0.28	0.42	0.56	0.14	1.55	0.	1.27	2.81	1.97	1.27	0.84	11.82
		1973	0.73	0.87	1.45	0.58	0.44	0.73	0.29	0.87	0.44	1.02	1.21	1.45	10.17
		1974	0.64	0.48	0.97	0.32	0.64	1.61	3.22	0.48	0.	3.22	0.81	1.77	14.17
		1975	1.07	0.41	1.81	1.73	0.99	0.74	0.82	0.33	1.24	1.73	0.49	0.58	11.96
		1976	0.51	1.29	0.	2.31	0.90	2.31	1.93	1.54	2.96	1.03	0.13	0.	14.91
		1977	0.88	0.	0.22	0.44	2.86	0.66	0.44	2.64	1.10	0.	0.66	1.10	11.01
		1978	0.43	0.64	2.02	2.24	0.32	0.11	0.53	0.	2.02	0.21	1.60	0.64	10.76
		1979	1.02	1.25	0.79	0.57	1.02	0.34	0.57	2.26	0.45	0.34	0.91	0.45	9.96
		1980	0.94	0.71	0.59	0.82	1.06	0.94	0.71	0.12	1.41	0.35	1.88	0.47	10.01
		MEAN	0.65	0.61	0.74	1.12	0.96	1.53	0.91	1.06	1.14	0.83	1.21	1.07	11.83

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
19	7060														
		1968	0.24	1.21	0.36	0.72	0.84	2.89	0.36	2.77	0.36	0.96	1.81	0.36	12.90
		1969	0.91	0.60	0.45	0.76	0.60	4.84	0.30	0.45	0.15	1.21	0.60	1.81	12.70
		1970	0.77	0.31	0.61	0.46	0.61	0.15	0.92	1.69	0.77	0.61	2.92	2.15	11.98
		1971	0.38	1.15	1.28	2.42	0.77	1.66	0.51	0.26	0.38	0.26	0.89	0.64	10.59
		1972	0.76	0.30	0.46	0.61	0.15	1.67	0.	1.37	3.04	2.13	1.37	0.91	12.77
		1973	0.65	0.78	1.30	0.52	0.39	0.65	0.26	0.78	0.39	0.91	1.17	1.30	9.09
		1974	0.63	0.47	0.94	0.31	0.63	1.57	3.14	0.47	0.	3.14	0.79	1.73	13.82
		1975	1.16	0.44	1.96	1.87	1.07	0.80	0.89	0.36	1.33	1.87	0.53	0.62	12.90
		1976	0.50	1.25	0.	2.26	0.88	2.26	1.88	1.50	2.88	1.00	0.13	0.	14.54
		1977	0.80	0.00	0.20	0.40	2.59	0.60	0.40	2.39	1.00	0.	0.60	1.00	9.97
		1978	0.45	0.68	2.15	2.37	0.34	0.11	0.56	0.00	2.15	0.23	1.69	0.68	11.41
		1979	1.00	1.22	0.78	0.56	1.00	0.33	0.56	2.23	0.44	0.33	0.89	0.44	9.79
		1980	0.92	0.69	0.57	0.80	1.03	0.92	0.69	0.11	1.38	0.34	1.84	0.46	9.76
		MEAN	0.70	0.70	0.85	1.08	0.84	1.42	0.81	1.11	1.10	1.00	1.17	0.93	11.71

TABLE B-6-2; PRECIPITATION RECORD OF BATTLE MOUNTAIN DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; COILS CREEK

CAN NO.	ELEVATION (FT.)	YEAR	MONTH (INCHES) JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
20	6440														
		1968	0.23	1.13	0.34	0.68	0.79	2.72	0.34	2.61	0.34	0.91	1.70	0.34	12.14
		1969	0.92	0.61	0.46	0.77	0.61	4.91	0.31	0.46	0.15	1.23	0.61	1.84	12.88
		1970	0.76	0.30	0.61	0.45	0.61	0.15	0.91	1.67	0.76	0.61	2.88	2.12	11.83
		1971	0.42	1.26	1.40	2.67	0.84	1.83	0.56	0.28	0.42	0.28	0.98	0.70	11.66
		1972	0.67	0.27	0.40	0.53	0.13	1.47	0.	1.20	2.67	1.87	1.20	0.80	11.20
		1973	0.62	0.75	1.25	0.50	0.37	0.62	0.25	0.75	0.37	0.87	1.12	1.25	8.72
		1974	0.62	0.46	0.92	0.31	0.62	1.54	3.08	0.46	0.	3.08	0.77	1.69	13.56
		1975	1.12	0.43	1.90	1.81	1.03	0.78	0.86	0.34	1.29	1.81	0.52	0.60	12.50
		1976	0.47	1.19	0.	2.14	0.83	2.14	1.78	1.42	2.73	0.95	0.12	0.	13.76
		1977	0.73	0.00	0.18	0.36	2.37	0.55	0.36	2.19	0.91	0.	0.55	0.91	9.12
		1978	0.42	0.63	1.99	2.20	0.31	0.10	0.52	0.	1.99	0.21	1.57	0.63	10.57
		1979	1.08	1.32	0.84	0.60	1.08	0.36	0.60	2.40	0.48	0.36	0.96	0.48	10.57
		1980	0.87	0.65	0.54	0.76	0.97	0.87	0.65	0.11	1.30	0.32	1.73	0.43	9.20
		MEAN	0.69	0.69	0.83	1.06	0.82	1.39	0.79	1.07	1.04	0.96	1.13	0.91	11.39

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TABLE C-1-1; ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             ROCK SPRINGS WATERSHED, ELKO DISTRICT, NEVADA.
                     RAIN CAN #; 12    LOCATION; LAT.= 41" 49' N.
                                                 LON.=114" 23' W.
                                          ELEVATION;  5900 FT.
              JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
------------------------------------------------------------------------------
OBSERVED R  0.93 0.67 0.71 0.94 1.75 1.94 1.03 1.06 0.92 1.04 0.98 0.76 12.73
 30-DAY R   0.90 0.72 0.69 0.94 1.70 1.94 1.00 1.03 0.92 1.01 0.98 0.74 12.56
            FP=0.78 AP=0.83 MP=0.65
    PI      0.65 0.59 0.45 0.24 0.12 0.04 0.01 0.01 0.04 0.19 0.35 0.60  3.29
            FG=0.81 AG=1.10 MG=0.89
    GI      0.   0.   0.   0.   0.   0.   0.75 0.89 0.51 0.   0.   0.    2.15
  CI(C5)    0.19 0.32 0.45 1.07 1.55 1.37 0.11 0.01 0.35 0.85 0.61 0.24  7.12
    SI      0.84 0.91 0.90 1.31 1.67 1.41 0.87 0.91 0.90 1.05 0.95 0.84 12.56
CALENDAR SI 0.87 0.85 0.93 1.31 1.72 1.41 0.89 0.94 0.90 1.08 0.95 0.87 12.72
     DOMINANCE;  KD=0.42.   PI=26.22%,  GI=17.09%,  CI=56.69%.
    Y90%=  7.31YEARS,   Y10%= 10.20YEARS,   YB(GOOD)=  8.75YEARS.
VARIABILITY(VAR.) & STANDARD DEVIATION(S. D.)
  VAR.      0.91 0.88 0.88 0.74 0.65 0.71 0.90 0.88 0.88 0.70 0.64 0.62  0.19
  S. D.     0.77 0.80 0.79 0.96 1.09 1.00 0.78 0.80 0.79 0.74 0.61 0.52  2.43
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS>=.01"  7.17 7.10 8.09 7.2411.06 9.15 6.41 7.72 7.58 6.67 5.76 6.37 90.33
DAYS>=.10"  3.35 3.94 4.19 4.77 6.40 5.33 2.94 3.91 3.82 3.52 3.29 3.52 48.97
DAYS>=.25"  1.21 1.19 1.37 2.01 2.31 2.62 1.46 1.75 1.89 1.90 1.88 1.01 20.61
DAYS>=.50"  0.38 0.26 0.27 0.88 1.15 1.29 0.98 0.84 0.63 0.87 0.82 0.40  8.75
DAYS>=1.0"  0.12 0.13 0.10 0.21 0.23 0.28 0.20 0.15 0.15 0.23 0.17 0.09  2.07
% >=0.25    16.9 16.8 16.9 27.8 20.9 28.6 22.8 22.7 24.9 28.4 32.7 15.8 22.81
% >=1.00     1.7  1.9  1.3  2.9  2.1  3.0  3.1  1.9  2.0  3.4  3.0  1.5  2.30
DEFICIENCY INDEX
            0.36 0.35 0.33 0.32 0.24 0.28 0.37 0.34 0.34 0.32 0.33 0.31 0.160
EXPECTED DOMINANT VEGETATION TYPE; PJ, SB and GW
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TABLE C-1-2: ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             CRANE SPRINGS WATERSHED, ELKO DISTRICT, NEVADA.
                     RAIN CAN #:  2     LOCATION: LAT.= 42° 32′ N.
                                                  LON.=115° 51′ W.
                                        ELEVATION:  5420 FT.
             JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
-----------------------------------------------------------------------------
OBSERVED R  1.16 1.00 0.87 0.97 1.29 1.21 0.50 0.65 0.94 0.90 1.09 1.08 11.66
 30-DAY R   1.13 1.07 0.84 0.97 1.25 1.21 0.48 0.63 0.94 0.87 1.09 1.05 11.54
            FP=0.84 AP=1.15 MP=0.96
    PT      0.96 0.87 0.67 0.35 0.18 0.06 0.01 0.01 0.06 0.29 0.52 0.89  4.88
            FG=0.92 AG=0.60 MG=0.56
    GT      0.   0.   0.   0.   0.   0.   0.47 0.56 0.32 0.   0.   0.    1.34
  CI(C4)    0.18 0.34 0.50 0.90 1.03 0.74 0.11 0.01 0.18 0.65 0.47 0.21  5.31
    SI      1.14 1.21 1.17 1.25 1.21 0.81 0.60 0.58 0.56 0.94 0.98 1.10 11.54
CALENDAR SI 1.17 1.13 1.21 1.25 1.24 0.81 0.61 0.59 0.56 0.97 0.98 1.13 11.67
     DOMINANCE:  KD=0.40.    PI=42.30%,  GI=11.63%,  CI=46.07%.
    Y90%=  9.21YEARS,    Y10%=  9.92YEARS,    YB(GOOD)=  9.56YEARS.
VARIABILITY(VAR.) & STANDARD DEVIATION(S. D.)
  VAR.      0.78 0.75 0.77 0.74 0.76 0.93 1.10 1.12 1.14 0.68 0.57 0.53  0.19
  S. D.     0.89 0.91 0.90 0.93 0.91 0.75 0.65 0.64 0.63 0.64 0.56 0.58  2.15
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS>=.01"  8.99 9.0410.03 7.31 9.97 6.21 5.15 6.30 5.02 6.72 6.20 8.68 89.62
DAYS>=.10"  4.41 5.33 5.83 5.15 3.24 3.75 2.16 3.25 2.63 3.24 3.53 4.43 48.94
DAYS>=.25"  1.56 1.45 1.75 2.04 1.37 1.56 1.06 1.16 1.19 1.72 1.96 1.30 18.12
DAYS>=.50"  0.52 0.14 0.23 0.72 0.74 0.45 0.64 0.52 0.27 0.74 0.90 0.46  6.35
DAYS>=1.0"  0.12 0.14 0.12 0.17 0.11 0.10 0.11 0.07 0.05 0.17 0.17 0.09  1.41
% >=0.25    17.3 16.1 17.4 27.8 13.7 25.1 20.6 18.4 23.8 25.7 31.7 15.0 20.22
% >=1.00     1.3  1.5  1.2  2.3  1.1  1.6  2.1  1.1  0.9  2.6  2.7  1.1  1.58
DEFICIENCY INDEX
            0.29 0.29 0.28 0.32 0.28 0.39 0.46 0.42 0.48 0.32 0.30 0.25 0.158
EXPECTED DOMINANT VEGETATION TYPE: SB
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TABLE C-2-1; ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             CROWLEY CREEK WATERSHED, WINNEMUCCA DISTRICT, NEVADA.
                     RAIN CAN #;  9    LOCATION; LAT.= 41" 37' N.
                                                 LON.=118"  3' W.
                                       ELEVATION;  6840 FT.
             JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
-----------------------------------------------------------------------------

OBSERVED R  1.49 0.86 1.02 1.05 1.07 1.89 0.61 1.07 0.90 1.03 1.72 1.40 14.11
 30-DAY R   1.45 0.92 0.99 1.05 1.04 1.89 0.59 1.04 0.90 1.00 1.72 1.36 13.94
            FP=0.92 AP=1.32 MP=1.21
    PI      1.21 1.09 0.84 0.44 0.22 0.08 0.02 0.02 0.08 0.36 0.65 1.12  6.14
            FG=0.89 AG=0.88 MG=0.79
    GI      0.   0.   0.   0.   0.   0.   0.66 0.79 0.45 0.   0.   0.    1.90
  CI(C6)    0.15 0.09 0.02 0.48 1.41 1.55 0.40 0.01 0.22 0.66 0.56 0.37  5.91
    SI      1.36 1.18 0.85 0.93 1.63 1.63 1.08 0.81 0.75 1.02 1.21 1.49 13.95
CALENDAR SI 1.40 1.10 0.88 0.93 1.68 1.63 1.11 0.84 0.75 1.05 1.21 1.53 14.12
     DOMINANCE;  KD=0.39.    PI=44.03%,   GI=13.60%,   CI=42.37%.
    Y90%= 11.35YEARS,   Y10%=  9.67YEARS,   YB(GOOD)= 10.51YEARS.
VARIABILITY(VAR.) & STANDARD DEVIATION(S. D.)
  VAR.      0.73 0.78 0.91 0.87 0.67 0.67 0.81 0.93 0.96 0.72 0.60 0.54  0.19
  S. D.     0.99 0.92 0.77 0.81 1.09 1.09 0.87 0.75 0.72 0.73 0.72 0.81  2.65
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS>=.01"  8.97 8.30 7.70 5.9110.7410.17 7.46 6.82 6.24 6.45 6.37 8.81 93.94
DAYS>=.10"  4.94 4.64 3.87 3.36 6.18 5.82 3.57 3.43 3.24 3.44 3.80 5.12 51.30
DAYS>=.25"  2.01 1.65 1.32 1.32 2.27 3.01 1.82 1.58 1.59 1.82 2.29 2.09 22.76
DAYS>=.50"  0.69 0.46 0.28 0.58 1.12 1.62 1.24 0.73 0.50 0.84 1.03 0.89  9.98
DAYS>=1.0"  0.24 0.21 0.10 0.13 0.24 0.34 0.29 0.13 0.12 0.23 0.24 0.26  2.53
% >=0.25    22.4 19.9 17.2 22.2 21.1 29.6 24.3 23.1 25.5 28.1 36.0 23.8 24.22
% >=1.00     2.7  2.6  1.3  2.2  2.2  3.4  3.8  1.9  1.9  3.6  3.8  3.0  2.69
DEFICIENCY INDEX
            0.28 0.31 0.34 0.38 0.25 0.26 0.33 0.37 0.39 0.33 0.31 0.25 0.156
EXPECTED DOMINANT VEGETATION TYPE; SB
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TABLE C-2-2; ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             COW CREEK WATERSHED, WINNEMUCCA DISTRICT, NEVADA.
                    RAIN CAN #; 10     LOCATION; LAT.= 40" 43' N.
                                                 LON.=118" 45' W.
                                       ELEVATION;  4800 FT.
             JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
---------------------------------------------------------------------------
OBSERVED R   0.98 0.57 0.52 0.61 0.66 1.07 0.51 0.58 0.36 0.47 0.81 0.82  7.96
 30-DAY R    0.95 0.61 0.50 0.61 0.64 1.07 0.49 0.56 0.36 0.46 0.81 0.80  7.86
            FP=0.89 AP=0.83 MP=0.74
    PI       0.74 0.67 0.51 0.27 0.14 0.05 0.01 0.01 0.05 0.22 0.40 0.69  3.76
            FG=0.94 AG=0.57 MG=0.54
    GI       0.   0.   0.   0.   0.   0.   0.45 0.54 0.31 0.   0.   0.    1.30
  CI(C6)     0.07 0.04 0.01 0.23 0.67 0.74 0.19 0.00 0.11 0.31 0.26 0.17  2.81
    SI       0.81 0.71 0.52 0.50 0.81 0.79 0.65 0.55 0.46 0.53 0.66 0.86  7.87
CALENDAR SI  0.84 0.66 0.54 0.50 0.83 0.79 0.67 0.57 0.46 0.55 0.66 0.89  7.97
     DOMINANCE;  KD=0.38.   PI=47.77%,  GI=16.52%,  CI=35.71%.
    Y90%= 13.17YEARS,   Y10%=  9.50YEARS,   YB(GOOD)= 11.34YEARS.
VARIABILITY(VAR.) & STANDARD DEVIATION(S. D.)
  VAR.       0.91 0.97 1.11 1.13 0.92 0.93 1.00 1.08 1.17 0.91 0.83 0.69  0.25
  S. D.      0.74 0.69 0.58 0.57 0.74 0.73 0.66 0.60 0.54 0.48 0.55 0.59  2.00
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS>=.01"   6.27 5.70 5.34 4.14 7.07 5.24 4.62 4.31 3.65 3.82 4.38 5.19 59.72
DAYS>=.10"   3.15 2.88 2.25 1.78 3.44 2.91 2.06 2.10 2.00 2.07 2.39 3.30 30.32
DAYS>=.25"   1.29 1.14 0.88 0.59 1.00 1.42 0.98 1.11 0.99 0.73 1.34 1.25 12.73
DAYS>=.50"   0.40 0.38 0.22 0.31 0.47 0.75 0.65 0.47 0.27 0.34 0.50 0.54  5.29
DAYS>=1.0"   0.18 0.14 0.06 0.06 0.10 0.19 0.15 0.08 0.07 0.13 0.11 0.15  1.42
% >=0.25     20.5 20.1 16.4 14.1 14.2 27.2 21.2 25.8 27.2 19.2 30.6 24.0 21.31
% >=1.00      2.8  2.4  1.1  1.4  1.5  3.6  3.2  1.9  2.0  3.4  2.6  3.0  2.38
DEFICIENCY INDEX
             0.38 0.41 0.46 0.52 0.36 0.42 0.47 0.50 0.57 0.49 0.43 0.36 0.226
EXPECTED DOMINANT VEGETATION TYPE; SB
---------------------------------------------------------------------------
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TABLE C-3-1; ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             EASTGATE WATERSHED, CARSON CITY DISTRICT, NEVADA.
                     RAIN CAN #;  6    LOCATION; LAT.= 39" 19' N.
                                                 LON.=117" 52' W.
                                       ELEVATION;  6200 FT.
             JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
-----------------------------------------------------------------------------
OBSERVED R  0.90 0.68 0.71 1.24 1.06 1.24 0.75 0.82 0.79 0.75 0.94 0.96 10.84
 30-DAY R   0.87 0.73 0.69 1.24 1.03 1.24 0.73 0.80 0.79 0.73 0.94 0.93 10.71
            FP=0.85 AP=0.90 MP=0.76
    PI      0.76 0.69 0.53 0.28 0.14 0.05 0.01 0.01 0.05 0.23 0.41 0.70  3.86
            FG=0.96 AG=0.83 MG=0.79
    GI      0.   0.   0.   0.   0.   0.   0.67 0.79 0.45 0.   0.   0.    1.91
  CI(C4)    0.16 0.32 0.47 0.84 0.96 0.69 0.10 0.00 0.16 0.61 0.43 0.19  4.94
    SI      0.92 1.00 1.00 1.11 1.10 0.74 0.78 0.81 0.66 0.83 0.84 0.90 10.71
CALENDAR SI 0.95 0.94 1.03 1.11 1.13 0.74 0.81 0.83 0.66 0.86 0.84 0.93 10.84
     DOMINANCE;  KD=0.37,   PI=36.00%,  GI=17.85%,  CI=46.15%.
    Y90%= 15.25YEARS,   Y10%=  9.34YEARS,   YB(GOOD)= 12.29YEARS.
VARIABILITY(VAR.) & STANDARD DEVIATION(S. D.)
  VAR.      0.81 0.78 0.78 0.74 0.75 0.90 0.87 0.86 0.94 0.92 0.87 0.78  0.28
  S. D.     0.75 0.78 0.78 0.83 0.82 0.67 0.69 0.70 0.63 0.77 0.74 0.70  3.04
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS>=.01"  5.81 5.95 6.46 6.01 7.39 4.57 4.95 5.26 4.31 5.03 4.60 4.36 64.69
DAYS>=.10"  3.13 3.56 3.37 3.29 4.00 2.34 2.47 2.85 2.44 2.73 2.33 2.66 35.16
DAYS>=.25"  1.56 1.83 1.78 1.51 1.83 1.24 1.11 1.46 1.36 1.34 1.55 1.72 18.28
DAYS>=.50"  0.63 0.64 0.69 0.83 0.81 0.78 0.67 0.66 0.49 0.67 0.66 0.69  8.21
DAYS>=1.0"  0.31 0.27 0.17 0.23 0.20 0.14 0.23 0.18 0.17 0.28 0.18 0.27  2.63
% >=0.25    26.8 30.8 27.5 25.0 24.7 27.2 22.5 27.8 31.5 26.6 33.6 39.4 28.26
% >=1.00     5.4  4.5  2.6  3.9  2.8  3.0  4.7  3.3  3.9  5.6  3.8  6.2  4.06
DEFICIENCY INDEX
            0.37 0.36 0.35 0.35 0.32 0.44 0.42 0.41 0.47 0.43 0.44 0.42 0.230
EXPECTED DOMINANT VEGETATION TYPE; PJ, SB and GW
-----------------------------------------------------------------------------
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TABLE C-3-2; ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             CHURCHILL CANYON WATERSHED, CARSON CITY DISTRICT, NEVADA.
                     RAIN CAN #;  1    LOCATION; LAT.= 39"  2' N.
                                                 LON.=119" 17' W.
                                       ELEVATION;  4620 FT.
             JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
-----------------------------------------------------------------------------
OBSERVED R  0.96 0.61 0.60 0.19 0.74 0.55 0.47 0.76 0.41 0.31 0.76 0.92  7.28
 30-DAY R   0.93 0.65 0.58 0.19 0.72 0.55 0.46 0.74 0.41 0.30 0.76 0.89  7.18
            FP=0.96 AP=0.88 MP=0.84
    PI      0.84 0.76 0.58 0.31 0.15 0.06 0.01 0.01 0.06 0.25 0.45 0.78  4.26
            FG=0.96 AG=0.65 MG=0.62
    GI      0.   0.   0.   0.   0.   0.   0.52 0.62 0.35 0.   0.   0.    1.50
  CI(C6)    0.04 0.02 0.00 0.12 0.34 0.37 0.10 0.00 0.05 0.16 0.13 0.09  1.42
    SI      0.88 0.78 0.58 0.42 0.49 0.43 0.63 0.63 0.46 0.41 0.58 0.87  7.18
CALENDAR SI 0.90 0.73 0.60 0.42 0.51 0.43 0.65 0.65 0.46 0.42 0.58 0.89  7.27
     DOMINANCE;  KD=0.43.    PI=59.32%,  GI=20.85%,  CI=19.83%.
    Y90%=  5.79YEARS,   Y10%= 10.49YEARS,   YB(GOOD)=  8.14YEARS.
VARIABILITY(VAR.) & STANDARD DEVIATION(S. D.)
  VAR.      0.82 0.87 0.99 1.15 1.07 1.14 0.95 0.95 1.10 1.08 0.99 0.80  0.33
  S. D.     0.72 0.68 0.58 0.49 0.53 0.49 0.60 0.60 0.51 0.44 0.58 0.69  2.38
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS>=.01"  5.47 4.92 4.65 3.70 4.88 2.85 4.06 4.12 3.09 3.02 3.71 4.09 48.54
DAYS>=.10"  2.95 2.94 2.21 1.62 2.19 1.42 2.05 2.24 1.73 1.51 1.68 2.46 25.00
DAYS>=.25"  1.50 1.54 1.12 0.50 0.87 0.70 0.83 1.14 0.96 0.54 1.10 1.76 12.57
DAYS>=.50"  0.62 0.49 0.39 0.27 0.33 0.44 0.51 0.51 0.30 0.26 0.42 0.69  5.24
DAYS>=1.0"  0.31 0.20 0.07 0.05 0.07 0.07 0.16 0.13 0.11 0.15 0.10 0.28  1.72
% >=0.25    27.5 31.3 24.1 13.5 17.8 24.6 20.5 27.6 31.1 17.9 29.8 43.1 25.90
% >=1.00     5.7  4.0  1.6  1.4  1.4  2.3  4.0  3.3  3.6  5.0  2.8  6.9  3.54
DEFICIENCY INDEX
            0.39 0.42 0.46 0.56 0.47 0.63 0.49 0.48 0.60 0.60 0.52 0.44 0.286
EXPECTED DOMINANT VEGETATION TYPE; SB and GW
-----------------------------------------------------------------------------
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TABLE C-4-1; ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             DUCKWATER WATERSHED, ELY DISTRICT, NEVADA.
                     RAIN CAN #;  4    LOCATION; LAT.= 39"  7' N.
                                                 LON.=115" 42' W.
                                       ELEVATION;  6265 FT.
              JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
------------------------------------------------------------------------------
OBSERVED R  0.65 0.50 0.72 0.64 0.91 1.14 1.01 1.25 1.04 0.70 0.72 0.83 10.11
 30-DAY R   0.63 0.53 0.70 0.64 0.88 1.14 0.98 1.21 1.04 0.68 0.72 0.81  9.96
            FP=0.78 AP=0.70 MP=0.54
    PI      0.54 0.49 0.38 0.20 0.10 0.04 0.01 0.01 0.04 0.16 0.29 0.50  2.75
            FG=0.95 AG=1.19 MG=1.13
    GI      0.   0.   0.   0.   0.   0.   0.95 1.13 0.64 0.   0.   0.    2.72
  CI(C3)    0.13 0.29 0.49 0.83 0.79 0.56 0.02 0.05 0.12 0.62 0.43 0.16  4.49
    SI      0.68 0.78 0.87 1.03 0.88 0.59 0.98 1.19 0.79 0.78 0.72 0.66  9.96
CALENDAR SI 0.70 0.73 0.90 1.03 0.91 0.59 1.01 1.23 0.79 0.80 0.72 0.68 10.10
     DOMINANCE;  KD=0.35.   PI=27.64%,  GI=27.33%,  CI=45.03%.
    Y90%= 22.03YEARS,   Y10%=  8.93YEARS,   YB(GOOD)= 15.48YEARS.
VARIABILITY(VAR.) & STANDARD DEVIATION(S. D.)
  VAR.      0.93 0.87 0.83 0.76 0.82 0.99 0.78 0.71 0.86 0.95 0.93 0.83  0.30
  S. D.     0.63 0.68 0.72 0.79 0.73 0.59 0.77 0.85 0.68 0.74 0.67 0.54  2.97
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS>=.01"  4.79 4.96 5.86 5.75 6.54 3.73 5.91 7.28 4.88 4.77 4.17 3.58 62.23
DAYS>=.10"  2.50 2.94 3.00 3.08 3.37 1.88 3.00 4.10 2.80 2.57 2.00 2.09 33.33
DAYS>=.25"  1.18 1.52 1.59 1.38 1.52 0.98 1.46 2.10 1.60 1.23 1.33 1.44 17.32
DAYS>=.50"  0.45 0.48 0.61 0.76 0.65 0.62 0.82 0.98 0.65 0.62 0.54 0.53  7.69
DAYS>=1.0"  0.22 0.20 0.14 0.21 0.16 0.10 0.35 0.29 0.22 0.27 0.14 0.19  2.49
% >=0.25    24.6 30.7 27.1 24.0 23.2 26.1 24.7 28.8 32.8 25.8 31.9 40.3 27.83
% >=1.00     4.6  3.9  2.3  3.7  2.4  2.7  6.0  4.0  4.5  5.7  3.4  5.4  4.01
DEFICIENCY INDEX
            0.44 0.42 0.38 0.36 0.35 0.51 0.36 0.31 0.42 0.45 0.47 0.48 0.240
EXPECTED DOMINANT VEGETATION TYPE; PJ and SB
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TABLE C-4-2; ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             STEPTOE WATERSHED, ELY DISTRICT, NEVADA.
                     RAIN CAN #;  6     LOCATION; LAT.= 38" 50' N.
                                                  LON.=114" 47' W.
                                        ELEVATION;  7400 FT.
             JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
--------------------------------------------------------------------------------
OBSERVED R  0.75 0.63 0.91 0.97 0.98 1.39 1.51 1.43 1.29 1.33 0.78 0.81 12.78
 30-DAY R   0.73 0.67 0.88 0.97 0.95 1.39 1.46 1.39 1.29 1.29 0.78 0.79 12.59
            FP=0.72 AP=0.77 MP=0.56
    PI      0.56 0.50 0.38 0.20 0.10 0.04 0.01 0.01 0.04 0.17 0.30 0.52  2.82
            FG=0.96 AG=1.55 MG=1.48
    GI      0.   0.   0.   0.   0.   0.   1.25 1.48 0.84 0.   0.   0.    3.58
  CI(C3)    0.19 0.40 0.68 1.15 1.08 0.77 0.03 0.07 0.16 0.85 0.59 0.22  6.19
    SI      0.74 0.90 1.07 1.36 1.19 0.81 1.29 1.57 1.04 1.02 0.89 0.73 12.59
CALENDAR SI 0.77 0.84 1.10 1.36 1.22 0.81 1.33 1.61 1.04 1.05 0.89 0.76 12.77
     DOMINANCE;  KD=0.37.   PI=22.41%,  GI=28.42%,  CI=49.17%.
    Y90%= 15.71YEARS,   Y10%=  9.30YEARS,   YB(GOOD)= 12.51YEARS.
VARIABILITY(VAR.) & STANDARD DEVIATION(S. D.)
  VAR.      0.90 0.82 0.76 0.68 0.72 0.87 0.69 0.63 0.77 0.92 0.91 0.84  0.29
  S. D.     0.67 0.74 0.81 0.92 0.85 0.70 0.89 0.99 0.80 0.94 0.81 0.61  3.61
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS>=.01"  4.83 5.27 6.39 6.49 7.41 4.76 7.28 9.16 5.87 5.77 4.58 3.65 71.46
DAYS>=.10"  2.56 3.25 3.44 3.70 4.09 2.37 3.80 5.32 3.47 3.17 2.30 2.15 39.60
DAYS>=.25"  1.30 1.76 1.95 1.92 2.09 1.30 2.05 2.70 2.05 1.76 1.61 1.57 22.08
DAYS>=.50"  0.52 0.58 0.81 1.06 0.94 0.85 1.03 1.26 0.98 0.90 0.71 0.60 10.23
DAYS>=1.0"  0.26 0.25 0.19 0.32 0.24 0.14 0.60 0.43 0.32 0.36 0.20 0.23  3.55
% >=0.25    27.0 33.5 30.5 29.7 28.2 27.3 28.1 29.5 34.9 30.5 35.3 43.2 30.91
% >=1.00     5.3  4.8  3.0  5.0  3.3  3.0  8.2  4.7  5.4  6.2  4.3  6.4  4.96
DEFICIENCY INDEX
            0.43 0.40 0.34 0.32 0.31 0.43 0.31 0.26 0.36 0.40 0.45 0.48 0.220
EXPECTED DOMINANT VEGETATION TYPE; PJ, SB and GW
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TABLE C-5-1; ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             MATHEWS CANYON WATERSHED, LAS VEGAS DISTRICT, NEVADA.
                       RAIN CAN #;  9    LOCATION; LAT.= 37" 33' N.
                                                   LON.=114"  7' W.
                                         ELEVATION;  5700 FT.
              JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
------------------------------------------------------------------------------
OBSERVED R  1.62 1.97 1.95 1.08 1.06 0.32 1.15 1.75 1.08 0.98 1.37 1.26 15.59
 30-DAY R   1.57 2.11 1.89 1.08 1.03 0.32 1.12 1.70 1.08 0.95 1.37 1.22 15.43
            FP=0.63 AP=1.74 MP=1.09
    PI      1.09 0.98 0.75 0.40 0.20 0.07 0.02 0.02 0.07 0.32 0.59 1.01  5.53
            FG=0.98 AG=1.52 MG=1.49
    GI      0.   0.   0.   0.   0.   0.   1.26 1.49 0.85 0.   0.   0.    3.60
  CI(C2)    0.37 0.69 0.85 0.97 0.84 0.54 0.04 0.02 0.04 0.95 0.61 0.37  6.30
    SI      1.46 1.67 1.60 1.37 1.04 0.61 1.32 1.53 0.97 1.27 1.20 1.38 15.43
CALENDAR SI 1.51 1.56 1.65 1.37 1.07 0.61 1.36 1.58 0.97 1.31 1.20 1.43 15.62
     DOMINANCE;  KD=0.35.    PI=35.84%,  GI=23.35%,  CI=40.81%.
    Y90%= 23.87YEARS,   Y10%=  8.85YEARS,   YB(GOOD)= 16.36YEARS.
VARIABILITY(VAR.) & STANDARD DEVIATION(S. D.)
  VAR.      0.70 0.65 0.67 0.73 0.86 1.15 0.75 0.69 0.89 0.99 1.02 0.89  0.30
  S. D.     1.03 1.09 1.07 1.00 0.89 0.71 0.99 1.05 0.86 1.26 1.22 1.23  4.62
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS>=.01"  5.76 6.86 7.22 6.01 6.48 3.63 6.64 8.43 4.57 6.95 4.83 4.40 71.79
DAYS>=.10"  3.43 4.81 4.40 3.51 3.25 1.64 3.93 5.11 2.90 3.79 2.72 2.90 42.38
DAYS>=.25"  2.59 3.07 3.03 2.30 2.16 0.86 2.10 2.48 1.82 2.48 2.24 2.29 27.42
DAYS>=.50"  1.23 1.19 1.46 1.26 0.96 0.53 0.87 1.07 0.88 1.27 1.15 1.11 12.98
DAYS>=1.0"  0.66 0.67 0.44 0.29 0.24 0.09 0.70 0.46 0.35 0.44 0.35 0.63  5.32
% >=0.25    45.0 44.8 42.0 38.3 33.4 23.6 31.6 29.4 39.8 35.7 46.3 52.1 38.20
% >=1.00    11.4  9.8  6.2  4.9  3.7  2.5 10.6  5.5  7.6  6.3  7.2 14.3  7.41
DEFICIENCY INDEX
            0.35 0.31 0.30 0.35 0.36 0.56 0.34 0.29 0.44 0.38 0.46 0.45 0.224
EXPECTED DOMINANT VEGETATION TYPE; PJ, SB and GW
------------------------------------------------------------------------------
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TABLE C-5-2; ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             PINE CANYON WATERSHED, LAS VEGAS DISTRICT, NEVADA.
                     RAIN CAN #;  4    LOCATION; LAT.= 37° 30' N.
                                                 LON.=114° 12' W.
                                       ELEVATION;  6080 FT.
             JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
-----------------------------------------------------------------------------
OBSERVED R  1.68 2.23 2.34 1.18 1.16 0.41 1.23 1.83 1.25 1.22 1.88 1.23 17.64
 30-DAY R   1.63 2.39 2.27 1.18 1.13 0.41 1.19 1.78 1.25 1.18 1.88 1.19 17.48
            FP=0.65 AP=1.84 MP=1.20
    PI      1.20 1.08 0.83 0.44 0.22 0.08 0.02 0.02 0.08 0.35 0.64 1.11  6.07
            FG=0.99 AG=1.61 MG=1.59
    GI      0.   0.   0.   0.   0.   0.   1.34 1.59 0.90 0.   0.   0.    3.84
  CI(C2)    0.45 0.82 1.02 1.17 1.01 0.65 0.05 0.02 0.05 1.14 0.73 0.45  7.57
    SI      1.65 1.90 1.85 1.60 1.23 0.73 1.42 1.63 1.04 1.50 1.38 1.56 17.48
CALENDAR SI 1.70 1.78 1.91 1.60 1.26 0.73 1.46 1.68 1.04 1.54 1.38 1.60 17.69
     DOMINANCE;  KD=0.36.   PI=34.71%,  GI=21.98%,  CI=43.31%.
    Y90%= 21.05YEARS,   Y10%=  8.98YEARS,   YB(GOOD)= 15.02YEARS.
VARIABILITY(VAR.) & STANDARD DEVIATION(S. D.)
  VAR.      0.66 0.61 0.62 0.67 0.78 1.05 0.72 0.66 0.86 0.96 1.00 0.89  0.29
  S. D.     1.09 1.16 1.15 1.08 0.96 0.77 1.02 1.09 0.89 1.44 1.38 1.38  5.06
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS>=.01"  6.15 7.40 7.83 6.47 7.00 4.20 7.03 8.95 4.80 7.67 5.24 4.66 77.39
DAYS>=.10"  3.72 5.23 4.90 3.85 3.69 1.91 4.18 5.43 3.09 4.36 3.06 3.10 46.53
DAYS>=.25"  2.88 3.36 3.41 2.66 2.47 1.02 2.26 2.64 1.94 2.90 2.51 2.47 30.52
DAYS>=.50"  1.41 1.36 1.70 1.46 1.14 0.64 0.92 1.14 0.98 1.51 1.33 1.23 14.83
DAYS>=1.0"  0.77 0.78 0.54 0.37 0.30 0.11 0.77 0.50 0.38 0.52 0.42 0.74  6.18
% >=0.25    46.8 45.5 43.6 41.2 35.2 24.4 32.1 29.5 40.4 37.8 47.9 53.1 39.44
% >=1.00    12.5 10.5  6.9  5.7  4.3  2.7 10.9  5.6  7.8  6.7  8.0 15.8  7.99
DEFICIENCY INDEX
            0.33 0.29 0.28 0.32 0.33 0.50 0.32 0.27 0.42 0.35 0.44 0.44 0.212
EXPECTED DOMINANT VEGETATION TYPE; CF, MF and PJ
-----------------------------------------------------------------------------
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TABLE C-6-1; ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             MILL CREEK WATERSHED, BATTLE MOUNTAIN DISTRICT, NEVADA.
                     RAIN CAN #;  4    LOCATION; LAT.= 40" 28' N.
                                                 LON.=116" 53' W.
                                           ELEVATION;  5780 FT.
             JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
-----------------------------------------------------------------------------
OBSERVED R  0.96 0.99 1.14 1.52 0.97 1.70 0.63 0.85 0.85 0.95 1.29 1.28 13.13
 30-DAY R   0.93 1.06 1.11 1.52 0.94 1.70 0.61 0.82 0.85 0.92 1.29 1.24 13.00
            FP=0.83 AP=1.14 MP=0.95
    PI      0.95 0.86 0.66 0.35 0.17 0.06 0.01 0.01 0.06 0.28 0.51 0.88  4.81
            FG=0.93 AG=0.78 MG=0.72
    GI      0.   0.   0.   0.   0.   0.   0.61 0.72 0.41 0.   0.   0.    1.75
  CI(C4)    0.21 0.41 0.61 1.09 1.25 0.90 0.14 0.01 0.21 0.79 0.57 0.25  6.44
    SI      1.16 1.27 1.27 1.44 1.42 0.97 0.76 0.74 0.69 1.07 1.08 1.13 13.00
CALENDAR SI 1.20 1.19 1.31 1.44 1.47 0.97 0.78 0.77 0.69 1.11 1.08 1.16 13.15
     DOMINANCE;  KD=0.40.   PI=36.98%,  GI=13.43%,  CI=49.59%.
    Y90%=  9.82YEARS,   Y10%=  9.84YEARS,   YB(GOOD)=  9.83YEARS.
VARIABILITY(VAR.) & STANDARD DEVIATION(S. D.)
  VAR.      0.77 0.74 0.74 0.70 0.71 0.84 0.93 0.94 0.97 0.79 0.72 0.66  0.23
  S. D.     0.90 0.94 0.94 1.01 1.01 0.81 0.71 0.70 0.67 0.85 0.77 0.75  2.94
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS>=.01"  7.36 7.81 8.23 7.15 9.13 6.11 5.15 5.41 5.08 6.22 5.57 5.94 79.15
DAYS>=.10"  3.99 4.38 4.36 4.29 5.16 3.32 2.39 2.73 2.77 3.49 3.18 3.76 43.82
DAYS>=.25"  1.84 2.04 2.10 2.07 2.10 1.72 1.15 1.43 1.44 1.87 2.01 1.73 21.48
DAYS>=.50"  0.66 0.78 0.77 1.12 1.00 0.96 0.75 0.63 0.48 0.92 0.87 0.76  9.71
DAYS>=1.0"  0.30 0.32 0.23 0.31 0.25 0.22 0.19 0.13 0.14 0.30 0.23 0.26  2.89
% >=0.25    25.0 26.1 25.6 29.0 22.9 28.1 22.3 26.5 28.3 30.1 36.0 29.1 27.14
% >=1.00     4.1  4.0  2.8  4.3  2.7  3.6  3.8  2.5  2.7  4.8  4.1  4.4  3.65
DEFICIENCY INDEX
            0.32 0.31 0.30 0.31 0.28 0.37 0.43 0.42 0.44 0.36 0.36 0.33 0.185
EXPECTED DOMINANT VEGETATION TYPE; PJ, SB and GW
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TABLE C-6-2; ANALYSIS OF LONG-TERM MEAN AND FREQUENCY OF PRECIPITATION FOR
             COILS CREEK WATERSHED, BATTLE MOUNTAIN DISTRICT, NEVADA.
                     RAIN CAN #; 10     LOCATION; LAT.= 39° 45' N.
                                                  LON.=116° 40' W.
                                        ELEVATION;  6750 FT.
              JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  YEAR
---------------------------------------------------------------------------------
OBSERVED R  0.61 0.57 0.70 1.07 0.89 1.46 0.82 0.98 1.09 0.77 1.15 1.03 11.14
 30-DAY R   0.59 0.61 0.68 1.07 0.86 1.46 0.80 0.95 1.09 0.75 1.15 1.00 11.01
            FP=0.78 AP=0.78 MP=0.61
    PI      0.61 0.55 0.42 0.22 0.11 0.04 0.01 0.01 0.04 0.18 0.33 0.56  3.08
            FG=0.94 AG=0.95 MG=0.89
    GI      0.   0.   0.   0.   0.   0.   0.75 0.89 0.51 0.   0.   0.    2.15
  CI(C4)    0.19 0.37 0.55 0.98 1.12 0.81 0.12 0.01 0.19 0.71 0.51 0.23  5.78
    SI      0.80 0.92 0.97 1.20 1.23 0.85 0.88 0.90 0.74 0.89 0.83 0.79 11.01
CALENDAR SI 0.82 0.86 1.00 1.20 1.27 0.85 0.91 0.93 0.74 0.92 0.83 0.81 11.15
     DOMINANCE;  KD=0.39.   PI=27.94%,  GI=19.49%,  CI=52.56%.
    Y90%= 11.26YEARS,   Y10%=  9.68YEARS,   YB(GOOD)= 10.47YEARS.
VARIABILITY(VAR.) & STANDARD DEVIATION(S. D.)
  VAR.      0.88 0.83 0.81 0.73 0.73 0.86 0.85 0.84 0.92 0.87 0.84 0.76  0.27
  S. D.     0.71 0.76 0.78 0.88 0.90 0.73 0.74 0.76 0.68 0.78 0.70 0.60  2.92
FREQUENCY OF 24-HOUR PRECIPITATION
DAYS>=.01"  5.63 5.94 6.66 6.34 8.08 5.26 5.59 6.01 4.97 5.34 4.69 4.32 68.84
DAYS>=.10"  2.92 3.38 3.40 3.55 4.46 2.77 2.74 3.20 2.77 2.94 2.46 2.66 37.24
DAYS>=.25"  1.33 1.63 1.69 1.65 1.95 1.46 1.31 1.66 1.51 1.46 1.56 1.43 18.65
DAYS>=.50"  0.48 0.56 0.62 0.90 0.90 0.87 0.80 0.76 0.56 0.72 0.65 0.57  8.40
DAYS>=1.0"  0.23 0.22 0.16 0.25 0.23 0.18 0.27 0.19 0.18 0.28 0.17 0.20  2.55
% >=0.25    23.6 27.4 25.4 26.1 24.1 27.7 23.5 27.6 30.4 27.3 33.4 33.2 27.09
% >=1.00     4.1  3.8  2.4  4.0  2.8  3.3  4.9  3.2  3.5  5.2  3.6  4.6  3.71
DEFICIENCY INDEX
            0.40 0.37 0.35 0.34 0.30 0.40 0.39 0.37 0.43 0.40 0.42 0.42 0.215
EXPECTED DOMINANT VEGETATION TYPE; PJ, SB and GW
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                    TABLE D-1-1; COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
                                 FOR ROCK SPRINGS WATERSHED, ELKO DISTRICT, NEVADA.
                                         RAIN CAN #; 12
                                         LOCATION; LAT.= 41°49′ N.
                                                   LON.=114°23′ W.
                                         ELEVATION;  5900 FT.
                                         WATER REQUIREMENT;
                                             CATTLE:  200 HEAD AT 15 GPD. MAY-OCT INCLUSIVE.     540000.0 GALLONS/YEAR
                                             HORSES:   10 HEAD AT 15 GPD. JAN-DEC INCLUSIVE.      54000.0 GALLONS/YEAR
----------------------------------------------------------------------------------------------------------------------------
                    JAN     FEB     MAR     APR     MAY     JUN     JUL     AUG     SEP     OCT     NOV     DEC  ANNUAL
RAIN(INCHES)  0.8689  0.8472  0.9252  1.3060  1.7227  1.4105  0.8946  0.9423  0.8980  1.0792  0.9538  0.8699 12.7183
 ANNUAL STANDARD DEVIATION
              0.1705  0.1662  0.1815  0.2563  0.3380  0.2768  0.1755  0.1849  0.1762  0.2118  0.1872  0.1707  2.4955
 DAYS>=.01"
              7.1659  7.1015  8.0934  7.2352 11.0639  9.1516  6.4127  7.7236  7.5757  6.6700  5.7591  6.3723 90.3251
 DAYS>=.10"
              3.3488  3.9377  4.1887  4.7653  6.3959  5.3316  2.9430  3.9078  3.8234  3.5182  3.2925  3.5162 48.9692
 AMOUNT <.1"
              0.1909  0.1582  0.1952  0.1235  0.2334  0.1910  0.1735  0.1908  0.1876  0.1576  0.1233  0.1428  2.0678
 RAINS >=.1"
              0.6780  0.6890  0.7299  1.1825  1.4893  1.2195  0.7211  0.7515  0.7103  0.9217  0.8305  0.7271 10.6505
----------------------------------------------------------------------------------------------------------------------------
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD),RASD(IN %); 6.5406
  ANNUAL PRECIPITATION IS REDUCED BY; 0.1632 INCHES.
  EXCEEDENCE PROBABILITY IS 52.5508 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  12.5551 INCHES EACH YEAR, 52.5508% OF THE TIME.
 3)TWO RSD(LTN-2RASD),2RASD(IN %);13.0812
  ANNUAL PRECIPITATION IS REDUCED BY; 0.3264 INCHES.
  EXCEEDENCE PROBABILITY IS 55.1017 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  12.3918 INCHES EACH YEAR, 55.1017% OF THE TIME.
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*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV- 5=END.
  3
 CHANGE CATCHMENT SIZE;
 HOW MANY SQ.FT.? E.G., 55000 ENTER    55000
    ?0000
                  33798.    34318.    36386.    58945.    74240.    60788.    35945.    37461.    35409.    45943.    41400.    36247.
 SUM(YR. 1-3)
                 163075.   197423.   233809.   292755.   366994.   427782.   463727.   501188.   536598.   582541.   623940.   660187.
                 693985.   728333.   764719.   823665.   897904.   958692.   994637.  1032098.  1067508.  1113451.  1154850.  1191097.
                1224896.  1259244.  1295630.  1354575.  1428815.  1489603.  1525547.  1563008.  1598418.  1644361.  1685761.  1722008.
WATER DEMAND (WD)
                  4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                  4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                 598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 158575.   188423.   220309.   274755.   254494.   220782.   162227.   105188.    46098.    -2459.    34440.    66187.
                  95485.   125333.   157219.   211665.   191404.   157692.    99137.    42098.   -16992.   -65549.   -28650.     3097.
                  32396.    62244.    94130.   148575.   128315.    94603.    36047.   -20992.   -80082.  -128639.   -91739.   -59992.
 DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
 E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;   530910
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  4
 CHANGE TANK VOLUME;
 HOW MANY GALLONS? E.G., 88000 ENTER    98000
    [illegible]
                  37815.    38430.    40710.    65950.    83062.    68012.    40216.    41913.    39617.    51403.    46319.    40554.
 SUM(YR. 1-3)
                 167092.   205521.   246231.   312181.   395243.   463255.   503471.   545383.   585001.   636403.   682723.   723277.
                 761092.   799521.   840231.   906181.   989243.  1057255.  1097471.  1139383.  1179001.  1230403.  1276723.  1317277.
                1355092.  1393521.  1434231.  1500181.  1583243.  1651255.  1691471.  1733383.  1773001.  1824403.  1870723.  1911277.
WATER DEMAND (WD)
                  4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                  4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                 598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
                 162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
                 162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
 WATER WILL SPILL OUT IN; MONTH 1- 3 WATER BAL.(GAL.)=  232731. WATER WASTE=    12731
 WATER WILL SPILL OUT IN; MONTH 1- 4 WATER BAL.(GAL.)=  294181. WATER WASTE=    61450
 TOTAL WASTE(GAL./YEAR)=     74181
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*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  1
 WHAT PREC. CASE? LTN, 1RSD, OR 2RSD,...(IF LTN=1, 1RSD=2, --- 5RSD=5.,)
  1
 AT THE RECOMMENDED CASE #;  2, PREC.=  9.4624 INCHES.  CATCHMENT=   100695 SQ.FT.
                  38306.    38929.    41239.    66807.    84142.    68896.    40739.    42458.    40132.    52071.    46922.    41081.
 SUM(YR. 1-3)
                 167583.   206512.   247752.   314559.   398701.   467596.   508335.   550793.   590925.   642996.   689918.   730999.
                 769305.   808235.   849474.   916281.  1000423.  1069319.  1110057.  1152515.  1192648.  1244718.  1291640.  1332721.
                1371028.  1409957.  1451196.  1518003.  1602145.  1671041.  1711780.  1754237.  1794370.  1846441.  1893362.  1934444.
WATER DEMAND (WD)
                   4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                   4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                 598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 163083.   197512.   234252.   296559.   286201.   260596.   206835.   154793.   100425.    57996.   100418.   136999.
                 170805.   205235.   241974.   304281.   293923.   268319.   214557.   162515.   108148.    65718.   108140.   144721.
                 178528.   212957.   249696.   312003.   301645.   276041.   222280.   170237.   115870.    73441.   115862.   152444.
 DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
 E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;     99402
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  2
  CHANGE FOR CATTLE;
 HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
     E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200 15  5 10
 100 15  5 10
  CHANGE FOR WILDLIFE;
 HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
     E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200 15  5 10
   5 15  1 12
                  37815.    38430.    40710.    65950.    83062.    68012.    40216.    41913.    39617.    51403.    46319.    40554.
 SUM(YR. 1-3)
                 167092.   205521.   246231.   312181.   395243.   463255.   503471.   545383.   585001.   636403.   682723.   723277.
                 761092.   799521.   840231.   906181.   989243.  1057255.  1097471.  1139383.  1179001.  1230403.  1276723.  1317277.
                1355092.  1393521.  1434231.  1500181.  1583243.  1651255.  1691471.  1733383.  1773001.  1824403.  1870723.  1911277.
WATER DEMAND (WD)
                   2250.     2250.     2250.     2250.    47250.    47250.    47250.    47250.    47250.    47250.     2250.     2250.
 SUM(YR. 1-3)
                   2250.     4500.     6750.     9000.    56250.   103500.   150750.   198000.   245250.   292500.   294750.   297000.
                 299250.   301500.   303750.   306000.   353250.   400500.   447750.   495000.   542250.   589500.   591750.   594000.
                 596250.   598500.   600750.   603000.   650250.   697500.   744750.   792000.   839250.   886500.   888750.   891000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 164842.   201021.   239481.   303181.   338993.   359755.   352721.   347383.   339751.   343903.   387973.   426277.
                 461842.   498021.   536481.   600181.   635993.   656755.   649721.   644383.   636751.   640903.   684973.   723277.
                 758842.   795021.   833481.   897181.   932993.   953755.   946721.   941383.   933751.   937903.   981973.  1020277.
 DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
 E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;     50347
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 3)TWO RSD(LTN-2RASD),2RASD(IN %);13.0812
                   JAN       FEB       MAR       APR       MAY       JUN       JUL       AUG       SEP       OCT       NOV       DEC
   *C=0.9
                0.5947    0.6043    0.6402    1.0371    1.3062    1.0695    0.6324    0.6591    0.6230    0.8083    0.7284    0.6377
+++ EFFECTIVE ANNUAL PRECIPITATION=  9.3410 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   100696,  TANK SIZE;   294181
 WATER YIELD (WY)
                37329.    37936.    40188.    65104.    81996.    67139.    39700.    41375.    39109.    50743.    45725.    40034.
 SUM(YR. 1-3)
               131829.   169766.   209953.   275057.   357053.   424192.   463891.   505266.   544375.   595118.   640843.   680877.
               718206.   756143.   796330.   861434.   943430.  1010568.  1050268.  1091643.  1130752.  1181495.  1227220.  1267254.
              1304583.  1342520.  1382707.  1447811.  1529806.  1596945.  1636645.  1678020.  1717129.  1767872.  1813597.  1853631.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               127329.   160766.   196453.   257057.   244553.   217192.   162391.   109266.    53875.    10118.    51343.    86877.
               119706.   153143.   188830.   249434.   236930.   209568.   154768.   101643.    46252.     2495.    43720.    79254.
               112083.   145520.   181207.   241811.   229306.   201945.   147145.    94020.    38629.    -5128.    36097.    71631.
  ***SKIP ONE ITERATION ***
 -   IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=   102005
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   102005,  CHANGE TANK SIZE TO;   294181
 WATER YIELD (WY)
                37815.    38430.    40710.    65950.    83062.    68012.    40216.    41913.    39617.    51403.    46319.    40554.
 SUM(YR. 1-3)
               167092.   205521.   246231.   312181.   395243.   463255.   503471.   545383.   585001.   636403.   682723.   723277.
               761092.   799521.   840231.   906181.   989243.  1057255.  1097471.  1139383.  1179001.  1230403.  1276723.  1317277.
              1355092.  1393521.  1434231.  1500181.  1583243.  1651255.  1691471.  1733383.  1773001.  1824403.  1870723.  1911277.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
               162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
               162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
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 2)ONE RSD(LTN-RASD),RASD(IN %); 6.5406
                       JAN       FEB       MAR       APR       MAY       JUN       JUL       AUG       SEP       OCT       NOV       DEC
   *C=0.9
                    0.6024    0.6122    0.6485    1.0506    1.3232    1.0834    0.6406    0.6677    0.6311    0.8188    0.7379    0.6460
+++ EFFECTIVE ANNUAL PRECIPITATION=  9.4624 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   99404,  TANK SIZE;   294181
 WATER YIELD (WY)
                    37329.    37936.    40188.    65104.    81996.    67139.    39700.    41375.    39109.    50743.    45725.    40034.
 SUM(YR. 1-3)
                   131829.   169766.   209953.   275057.   357053.   424192.   463891.   505266.   544375.   595118.   640843.   680877.
                   718206.   756143.   796330.   861434.   943430.  1010568.  1050268.  1091643.  1130752.  1181495.  1227220.  1267254.
                  1304583.  1342520.  1382707.  1447811.  1529806.  1596945.  1636645.  1678020.  1717129.  1767872.  1813597.  1853631.
WATER DEMAND (WD)
                     4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                     4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                   598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                  1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                   127329.   160766.   196453.   257057.   244553.   217192.   162391.   109266.    53875.    10118.    51343.    86877.
                   119706.   153143.   188830.   249434.   236930.   209568.   154768.   101643.    46252.     2495.    43720.    79254.
                   112083.   145520.   181207.   241811.   229306.   201945.   147145.    94020.    38629.    -5128.    36097.    71631.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=   100696
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;  100696,  CHANGE TANK SIZE TO;   294181
 WATER YIELD (WY)
                    37815.    38430.    40710.    65950.    83062.    68012.    40216.    41913.    39617.    51403.    46319.    40554.
 SUM(YR. 1-3)
                   167092.   205521.   246231.   312181.   395243.   463255.   503471.   545383.   585001.   636403.   682723.   723277.
                   761092.   799521.   840231.   906181.   989243.  1057255.  1097471.  1139383.  1179001.  1230403.  1276723.  1317277.
                  1355092.  1393521.  1434231.  1500181.  1583243.  1651255.  1691471.  1733383.  1773001.  1824403.  1870723.  1911277.
WATER DEMAND (WD)
                     4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                     4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                   598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                  1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                   162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
                   162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
                   162592.   196521.   232731.   294181.   202743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
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                    JAN          FEB          MAR          APR          MAY          JUN          JUL          AUG          SEP          OCT          NOV          DEC
   *C=0.9
                 0.6102       0.6201       0.6569       1.0642       1.3404       1.0975       0.6490       0.6764       0.6393       0.8295       0.7475       0.6544
          CATCHMENT AREA =   99404 SQUARE FEET.   EFFECTIVE ANNUAL PRECIPITATION = 9.5854 INCHES
 WATER YIELD (WY)
+++++FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
                 37815.       38430.       40710.       65950.       83062.       68012.       40216.       41913.       39617.       51403.       46319.       40554.
      SUM
                 37815.       76244.      116954.      182904.      265966.      333978.      374194.      416106.      455724.      507126.      553446.      594000.
WATER DEMAND (WD)
                 49500.       99000.      148500.      198000.      247500.      297000.      346500.      396000.      445500.      495000.      544500.      594000.
WATER BALANCE (WB)
                -11685.      -11070.       -8790.       16450.       33562.       18512.       -9284.       -7587.       -9883.        1903.       -3181.       -8946.
ANNUAL WATER DEFICIENCY=    70423
FOR CATCHMENT AREA=    99404
 WATER YIELD (WY)
                 37815.       38430.       40710.       65950.       83062.       68012.       40216.       41913.       39617.       51403.       46319.       40554.
 SUM(YR. 1-3)
                132315.      170744.      211454.      277404.      360466.      428478.      468694.      510606.      550224.      601626.      647946.      688500.
                726315.      764744.      805454.      871404.      954466.     1022478.     1062694.     1104606.     1144224.     1195626.     1241946.     1282500.
               1320315.     1358744.     1399454.     1465404.     1548466.     1616478.     1656694.     1698606.     1738224.     1789626.     1835946.     1876500.
WATER DEMAND (WD)
                  4500.        4500.        4500.        4500.       94500.       94500.       94500.       94500.       94500.       94500.        4500.        4500.
 SUM(YR. 1-3)
                  4500.        9000.       13500.       18000.      112500.      207000.      301500.      396000.      490500.      585000.      589500.      594000.
                598500.      603000.      607500.      612000.      706500.      801000.      895500.      990000.     1084500.     1179000.     1183500.     1188000.
               1192500.     1197000.     1201500.     1206000.     1300500.     1395000.     1489500.     1584000.     1678500.     1773000.     1777500.     1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                127815.      161744.      197954.      259404.      247966.      221478.      167194.      114606.       59724.       16626.       58446.       94500.
                127815.      161744.      197954.      259404.      247966.      221478.      167194.      114606.       59724.       16626.       58446.       94500.
                127815.      161744.      197954.      259404.      247966.      221478.      167194.      114606.       59724.       16626.       58446.       94500.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    99404,  TANK SIZE;    294181
 WATER YIELD (WY)
                 37815.       38430.       40710.       65950.       83062.       68012.       40216.       41913.       39617.       51403.       46319.       40554.
 SUM(YR. 1-3)
                167092.      205521.      246231.      312181.      395243.      463255.      503471.      545383.      585001.      636403.      682723.      723277.
                761092.      799521.      840231.      906181.      989243.     1057255.     1097471.     1139383.     1179001.     1230403.     1276723.     1317277.
               1355092.     1393521.     1434231.     1500181.     1583243.     1651255.     1691471.     1733383.     1773001.     1824403.     1870723.     1911277.
WATER DEMAND (WD)
                  4500.        4500.        4500.        4500.       94500.       94500.       94500.       94500.       94500.       94500.        4500.        4500.
 SUM(YR. 1-3)
                  4500.        9000.       13500.       18000.      112500.      207000.      301500.      396000.      490500.      585000.      589500.      594000.
                598500.      603000.      607500.      612000.      706500.      801000.      895500.      990000.     1084500.     1179000.     1183500.     1188000.
               1192500.     1197000.     1201500.     1206000.     1300500.     1395000.     1489500.     1584000.     1678500.     1773000.     1777500.     1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                162592.      196521.      232731.      294181.      282743.      256255.      201971.      149383.       94501.       51403.       93223.      129277.
                162592.      196521.      232731.      294181.      282743.      256255.      201971.      149383.       94501.       51403.       93223.      129277.
                162592.      196521.      232731.      294181.      282743.      256255.      201971.      149383.       94501.       51403.       93223.      129277.
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*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  1
 WHAT PREC. CASE? LTN, 1RSD, OR 2RSD,...(IF LTN=1, 1RSD=2, --- 5RSD=5.,)
  1
 AT THE RECOMMENDED CASE #;  2, PREC.=  9.4624 INCHES.  CATCHMENT=   100695 SQ.FT.
                  38306.    38929.    41239.    66807.    84142.    68896.    40739.    42458.    40132.    52071.    46922.    41081.
 SUM(YR. 1-3)
                 167583.   206512.   247752.   314559.   398701.   467596.   508335.   550793.   590925.   642996.   689918.   730999.
                 769305.   808235.   849474.   916281.  1000423.  1069319.  1110057.  1152515.  1192648.  1244718.  1291640.  1332721.
                1371028.  1409957.  1451196.  1518003.  1602145.  1671041.  1711780.  1754237.  1794370.  1846441.  1893362.  1934444.
WATER DEMAND (WD)
                   4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                   4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                 598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 163083.   197512.   234252.   296559.   286201.   260596.   206835.   154793.   100425.    57996.   100418.   136999.
                 170805.   205235.   241974.   304281.   293923.   268319.   214557.   162515.   108148.    65718.   108140.   144721.
                 178528.   212957.   249696.   312003.   301645.   276041.   222280.   170237.   115870.    73441.   115862.   152444.
 DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
 E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;    99402
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  2
  CHANGE FOR CATTLE;
 HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
     E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200 15  5 10
 100 15  5 10 .
  CHANGE FOR WILDLIFE;
 HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
     E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200 15  5 10
   5 15  1 12
                  37815.    38430.    40710.    65950.    83062.    68012.    40216.    41913.    39617.    51403.    46319.    40554.
 SUM(YR. 1-3)
                 167092.   205521.   246231.   312181.   395243.   463255.   503471.   545383.   585001.   636403.   682723.   723277.
                 761092.   799521.   840231.   906181.   989243.  1057255.  1097471.  1139383.  1179001.  1230403.  1276723.  1317277.
                1355092.  1393521.  1434231.  1500181.  1583243.  1651255.  1691471.  1733383.  1773001.  1824403.  1870723.  1911277.
WATER DEMAND (WD)
                   2250.     2250.     2250.     2250.    47250.    47250.    47250.    47250.    47250.    47250.     2250.     2250.
 SUM(YR. 1-3)
                   2250.     4500.     6750.     9000.    56250.   103500.   150750.   198000.   245250.   292500.   294750.   297000.
                 299250.   301500.   303750.   306000.   353250.   400500.   447750.   495000.   542250.   589500.   591750.   594000.
                 596250.   598500.   600750.   603000.   650250.   697500.   744750.   792000.   839250.   886500.   888750.   891000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 164842.   201021.   239481.   303181.   338993.   359755.   352721.   347383.   339751.   343903.   387973.   426277.
                 461842.   498021.   536481.   600181.   635993.   656755.   649721.   644383.   636751.   640903.   684973.   723277.
                 758842.   795021.   833481.   897181.   932993.   953755.   946721.   941383.   933751.   937903.   981973.  1020277.
 DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
 E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;    50347
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*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.

 CHANGE CATCHMENT SIZE;
 HOW MANY SQ.FT.? E.G., 55000 ENTER    55000
    55000
                  33798.    34348.    36386.    58945.    74240.    60788.    35945.    37461.    35409.    45943.    41400.    36247.
 SUM(YR, 1-3)
                 163075.   197423.   233809.   292755.   366994.   427782.   463727.   501188.   536598.   582541.   623940.   660187.
                 693985.   728333.   764719.   823665.   897904.   958692.   994637.  1032098.  1067508.  1113451.  1154850.  1191097.
                1224896.  1259244.  1295630.  1354575.  1428815.  1489603.  1525547.  1563008.  1598418.  1644361.  1685761.  1722008.
WATER DEMAND (WD)
                   4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR, 1-3)
                   4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                 598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR, 1-3)
                 158575.   188423.   220309.   274755.   254494.   220782.   162227.   105188.    46098.    -2459.    34440.    66187.
                  95485.   125333.   157219.   211665.   191404.   157692.    99137.    42098.   -16992.   -65549.   -28650.     3097.
                  32396.    62244.    94130.   148575.   128315.    94603.    36047.   -20992.   -80082.  -128639.   -91739.   -59992.
 DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
 I.E., CATCHMENT SIZE(SQ.FT.) CAN BE;   530910
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  1
 CHANGE TANK VOLUME;
 HOW MANY GALLONS? E.G., 88000 ENTER    88000
    88000
                  37815.    38430.    40710.    65950.    83062.    68012.    40216.    41913.    39617.    51403.    46319.    40554.
 SUM(YR, 1-3)
                 167092.   205521.   246231.   312181.   395243.   463255.   503471.   545383.   585001.   636403.   682723.   723277.
       .         761092.   799521.   840231.   906181.   989243.  1057255.  1097471.  1139383.  1179001.  1230403.  1276723.  1317277.
                1355092.  1393521.  1434231.  1500181.  1583243.  1651255.  1691471.  1733383.  1773001.  1824403.  1870723.  1911277.
WATER DEMAND (WD)
                   4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR, 1-3)
                   4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                 598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR, 1-3)
                 162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
                 162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
                 162592.   196521.   232731.   294181.   282743.   256255.   201971.   149383.    94501.    51403.    93223.   129277.
 WATER WILL SPILL OUT IN; MONTH #= 3 WATER BAL.(GAL.)=  232731. WATER WASTE=     12731
 WATER WILL SPILL OUT IN; MONTH #= 4 WATER BAL.(GAL.)=  294181. WATER WASTE=     61450
 TOTAL WASTE(GAL./YEAR)=    74181
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                        TABLE D-1-2; COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
                                     FOR CRANE SPRINGS WATERSHED, ELKO DISTRICT, NEVADA.
                                              RAIN CAN #;  2
                                              LOCATION; LAT.= 42"32' N.
                                                        LON.=115'51' W.
                                              ELEVATION;  5420 FT.
                                              WATER REQUIREMENT;
                                                  CATTLE:  200 HEAD AT 15 GPD. MAY-OCT INCLUSIVE.     540000.0 GALLONS/YEAR
                                                  HORSES:   10 HEAD AT 15 GPD. JAN-DEC INCLUSIVE.      54000.0 GALLONS/YEAR
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                  JAN      FEB      MAR      APR      MAY      JUN      JUL      AUG      SEP      OCT      NOV      DEC   ANNUAL
RAIN(INCHES)   1.1749   1.1299   1.2064   1.2511   1.2449   0.8087   0.6140   0.5938   0.5559   0.9682   0.9845   1.1332  11.6655
 ANNUAL STANDARD DEVIATION
               0.2244   0.2158   0.2304   0.2390   0.2378   0.1545   0.1173   0.1134   0.1062   0.1849   0.1881   0.2165   2.2282
 DAYS>=.01"
               8.9935   9.0404  10.0287   7.3101   9.9708   6.2129   5.1549   6.2970   5.0151   6.7170   6.1951   8.6832  89.6188
 DAYS>=.10"
               4.4122   5.3259   5.8267   5.1457   5.2430   3.7472   2.1649   3.2476   2.6253   3.2411   3.5340   4.4307  48.9443
 AMOUNT <.1"
               0.2291   0.1857   0.2101   0.1082   0.2364   0.1233   0.1495   0.1525   0.1195   0.1738   0.1331   0.2126   2.0337
 RAINS >=.1"
               0.9458   0.9441   0.9963   1.1429   1.0085   0.6854   0.4645   0.4414   0.4364   0.7944   0.8515   0.9206   9.6317
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THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD),RASD(IN %); 6.7343
  ANNUAL PRECIPITATION IS REDUCED BY; 0.1501 INCHES.
  EXCEEDENCE PROBABILITY IS 52.6264 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  11.5154 INCHES EACH YEAR, 52.6264% OF THE TIME.
 3)TWO RSD(LTN-2RASD),2RASD(IN %);13.4687
  ANNUAL PRECIPITATION IS REDUCED BY; 0.3001 INCHES.
  EXCEEDENCE PROBABILITY IS 55.2528 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  11.3651 INCHES EACH YEAR, 55.2528% OF THE TIME.
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                      JAN         FEB         MAR         APR         MAY         JUN         JUL         AUG         SEP         OCT         NOV         DEC
   RC=0.9
                    0.8513      0.8497      0.8967      1.0286      0.9076      0.6168      0.4180      0.3972      0.3928      0.7149      0.7663      0.8285
          CATCHMENT AREA =  109918 SQUARE FEET.   EFFECTIVE ANNUAL PRECIPITATION = 8.6686 INCHES
 WATER YIELD (WY)
*****FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
                    58331.      58226.      61445.      70483.      62193.      42267.      28643.      27219.      26916.      48990.      52512.      56775.
     SUM
                    58331.     116557.     178002.     248485.     310678.     352945.     381588.     408807.     435723.     484713.     537225.     594000.
WATER DEMAND (WD)
                    49500.      99000.     148500.     198000.     247500.     297000.     346500.     396000.     445500.     495000.     544500.     594000.
WATER BALANCE (WB)
                     8831.       8726.      11945.      20983.      12693.      -7233.     -20857.     -22281.     -22584.       -510.       3012.       7275.
ANNUAL WATER DEFICIENCY=     73461
FOR CATCHMENT AREA=    109918
 WATER YIELD (WY)
                    58331.      58226.      61445.      70483.      62193.      42267.      28643.      27219.      26916.      48990.      52512.      56775.
 SUM(YR. 1-3)
                   152831.     211057.     272502.     342985.     405178.     447445.     476088.     503307.     530223.     579213.     631725.     688500.
                   746831.     805057.     866502.     936985.     999178.    1041445.    1070088.    1097307.    1124223.    1173213.    1225725.    1282500.
                  1340931.    1399057.    1460502.    1530985.    1593178.    1635445.    1664088.    1691307.    1718223.    1767213.    1819725.    1876500.
WATER DEMAND (WD)
                     4500.       4500.       4500.       4500.      94500.      94500.      94500.      94500.      94500.      94500.       4500.       4500.
 SUM(YR. 1-3)
                     4500.       9000.      13500.      18000.     112500.     207000.     301500.     396000.     490500.     585000.     589500.     594000.
                   598500.     603000.     607500.     612000.     706500.     801000.     895500.     990000.    1084500.    1179000.    1183500.    1188000.
                  1192500.    1197000.    1201500.    1206000.    1300500.    1395000.    1489500.    1584000.    1678500.    1773000.    1777500.    1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                   148331.     202057.     259002.     324985.     292678.     240445.     174588.     107307.      39723.      -5787.      42225.      94500.
                   148331.     202057.     259002.     324985.     292678.     240445.     174588.     107307.      39723.      -5787.      42225.      94500.
                   148331.     202057.     259002.     324985.     292678.     240445.     174588.     107307.      39723.      -5787.      42225.      94500.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   109918,  TANK SIZE;    379762
 WATER YIELD (WY)
                    58331.      58226.      61445.      70483.      62193.      42267.      28643.      27219.      26916.      48990.      52512.      56775.
 SUM(YR. 1-3)
                   207608.     265834.     327279.     397762.     459955.     502222.     530865.     558084.     585000.     633990.     686502.     743277.
                   801608.     859834.     921279.     991762.    1053955.    1096222.    1124865.    1152084.    1179000.    1227990.    1280502.    1337277.
                  1395608.    1453834.    1515279.    1585762.    1647955.    1690222.    1718865.    1746084.    1773000.    1821990.    1874502.    1931277.
WATER DEMAND (WD)
                     4500.       4500.       4500.       4500.      94500.      94500.      94500.      94500.      94500.      94500.       4500.       4500.
 SUM(YR. 1-3)
                     4500.       9000.      13500.      18000.     112500.     207000.     301500.     396000.     490500.     585000.     589500.     594000.
                   598500.     603000.     607500.     612000.     706500.     801000.     895500.     990000.    1084500.    1179000.    1183500.    1188000.
                  1192500.    1197000.    1201500.    1206000.    1300500.    1395000.    1489500.    1584000.    1678500.    1773000.    1777500.    1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                   203108.     256834.     313779.     379762.     347455.     295222.     229365.     162084.      94500.      48990.      97002.     149277.
                   203108.     256834.     313779.     379762.     347455.     295222.     229365.     162084.      94500.      48990.      97002.     149277.
                   203108.     256834.     313779.     379762.     347455.     295222.     229365.     162084.      94500.      48990.      97002.     149277.
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3)ONE RSD(LTN-RASD),RASD(IN %); 6.7343
                    JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
   *C=0.9
                 0.8403     0.8388     0.8852     1.0154     0.8959     0.6089     0.4126     0.3921     0.3877     0.7057     0.7565     0.8179
*** EFFECTIVE ANNUAL PRECIPITATION=  8.5571 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   109918,  TANK SIZE;   379762
 WATER YIELD (WY)
                 57581.     57477.     60655.     69576.     61393.     41724.     28275.     26869.     26570.     48360.     51837.     56044.
 SUM(YR. 1-3)
                152081.    209558.    270213.    339789.    401182.    442905.    471180.    498049.    524619.    572979.    624815.    680859.
                738441.    795917.    856572.    926148.    987541.   1029265.   1057540.   1084408.   1110978.   1159338.   1211175.   1267219.
               1324800.   1382277.   1442932.   1512508.   1573900.   1615624.   1643899.   1670768.   1697337.   1745697.   1797534.   1853578.
WATER DEMAND (WD)
                  4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                  4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
               1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                147581.    200558.    256713.    321789.    288682.    235905.    169680.    102049.     34119.    -12021.     35315.     86859.
                139941.    192917.    249072.    314148.    281041.    228265.    162040.     94408.     26478.    -19662.     27675.     79219.
                132300.    185277.    241432.    306508.    273400.    220624.    154399.     86768.     18837.    -27303.     20034.     71578.
  ***SKIP ONE ITERATION ***
     IN ORDER TO PRODUCE ENOUGH AWY, FOR AWD, THE CATCHMENT AREA (SQ. FT.)=   111350
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   111350,  CHANGE TANK SIZE TO;   379762
 WATER YIELD (WY)
                 58331.     58226.     61445.     70483.     62193.     42267.     28643.     27219.     26916.     48990.     52512.     56775.
 SUM(YR. 1-3)
                207608.    265834.    327279.    397762.    459955.    502222.    530865.    558084.    585000.    633990.    686502.    743277.
                801608.    859834.    921279.    991762.   1053955.   1096222.   1124865.   1152084.   1179000.   1227990.   1280502.   1337277.
               1395608.   1453834.   1515279.   1585762.   1647955.   1690222.   1718865.   1746084.   1773000.   1821990.   1874502.   1931277.
WATER DEMAND (WD)
                  4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                  4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
               1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                203108.    256834.    313779.    379762.    347455.    295222.    229365.    162084.     94500.     48990.     97002.    149277.
                203108.    256834.    313779.    379762.    347455.    295222.    229365.    162084.     94500.     48990.     97002.    149277.
                203108.    256834.    313779.    379762.    347455.    295222.    229365.    162084.     94500.     48990.     97002.    149277.
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 3)TWO RSD(LTN-2RASD),2RASD(IN %);13.4687
                      JAN       FEB       MAR       APR       MAY       JUN       JUL       AUG       SEP       OCT       NOV       DEC
   *C=0.9
                   0.8295    0.8280    0.8738    1.0023    0.8844    0.6011    0.4073    0.3871    0.3828    0.6967    0.7467    0.8074
+++ EFFECTIVE ANNUAL PRECIPITATION=  8.4470 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   111350,  TANK SIZE;   379762
 WATER YIELD (WY)
                   57581.    57477.    60655.    69576.    61393.    41724.    28275.    26869.    26570.    48360.    51837.    56044.
 SUM(YR. 1-3)
                  152081.   209558.   270213.   339789.   401182.   442905.   471180.   498049.   524619.   572979.   624815.   680859.
                  738441.   795917.   856572.   926148.   987541.  1029265.  1057540.  1084408.  1110978.  1159338.  1211175.  1267219.
                 1324800.  1382277.  1442932.  1512508.  1573900.  1615624.  1643899.  1670768.  1697337.  1745697.  1797534.  1853578.
WATER DEMAND (WD)
                    4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                    4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                  598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                 1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                  147581.   200558.   256713.   321789.   288682.   235905.   169680.   102049.    34119.   -12021.    35315.    86859.
                  139941.   192917.   249072.   314148.   281041.   228265.   162040.    94408.    26478.   -19662.    27675.    79219.
                  132300.   185277.   241432.   306508.   273400.   220624.   154399.    86768.    18837.   -27303.    20034.    71578.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=   112800
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   112800,  CHANGE TANK SIZE TO;   379762
 WATER YIELD (WY)
                   58331.    58226.    61445.    70483.    62193.    42267.    28643.    27219.    26916.    48990.    52512.    56775.
 SUM(YR. 1-3)
                  207608.   265834.   327279.   397762.   459955.   502222.   530865.   558084.   585000.   633990.   686502.   743277.
                  801608.   859834.   921279.   991762.  1053955.  1096222.  1124865.  1152084.  1179000.  1227990.  1280502.  1337277.
                 1395608.  1453834.  1515279.  1585762.  1647955.  1690222.  1718865.  1746084.  1773000.  1821990.  1874502.  1931277.
WATER DEMAND (WD)
                    4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                    4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                  598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                 1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                  203108.   256834.   313779.   379762.   347455.   295222.   229365.   162084.    94500.    48990.    97002.   149277.
                  203108.   256834.   313779.   379762.   347455.   295222.   229365.   162084.    94500.    48990.    97002.   149277.
                  203108.   256834.   313779.   379762.   347455.   295222.   229365.   162084.    94500.    48990.    97002.   149277.
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 FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                              PARAMETERS
  PRECIPITATION               ANNUAL WD  CATCHMENT       TANK
  CASE NAME   IN./YR.            GAL.     SQ.FT.         GAL.
     1   LTN   8.6686          594000     109916       379762
     2  1RSD   8.5571          594000     111349       379762
     3  2RSD   8.4470          594000     112799       379762
     4  3RSD   8.3383          594000     114269       379762
     5  4RSD   8.2311          594000     115758       379762
 SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.17, CASE 2)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  5
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                         TABLE D-2-1; COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
                                      FOR CROWLEY CREEK WATERSHED, WINNEMUCCA DISTRICT, NEVADA.
                                               RAIN CAN #;  9
                                               LOCATION; LAT.= 41'37' N.
                                                        LON.=118' 3' W.
                                               ELEVATION;  6840 FT.
                                               WATER REQUIREMENT;
                                                   CATTLE:  200 HEAD AT 15 GPD. MAY-OCT INCLUSIVE.     540000.0 GALLONS/YEAR
                                                   HORSES:   10 HEAD AT 15 GPD. JAN-DEC INCLUSIVE.      54000.0 GALLONS/YEAR
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                   JAN      FEB      MAR      APR      MAY      JUN      JUL      AUG      SEP      OCT      NOV      DEC  ANNUAL
RAIN(INCHES)  1.4024   1.1039   0.8809   0.9281   1.6840   1.6346   1.1107   0.8352   0.7522   1.0520   1.2052   1.5339 14.1231
 ANNUAL STANDARD DEVIATION
              0.2699   0.2124   0.1695   0.1786   0.3241   0.3146   0.2137   0.1607   0.1447   0.2024   0.2319   0.2952  2.7178
 DAYS>=.01"
              8.9659   8.3050   7.6980   5.9133  10.7391  10.1674   7.4611   6.8179   6.2435   6.4542   6.3657   8.8107 93.9417
 DAYS>=.10"
              4.8361   4.6355   3.8685   3.3587   6.1847   5.8193   3.5693   3.4281   3.2410   3.4426   3.7966   5.1188 51.2992
 AMOUNT <.1"
              0.2065   0.1835   0.1915   0.1277   0.2277   0.2174   0.1946   0.1695   0.1501   0.1506   0.1285   0.1846  2.1321
 RAINS >=.1"
              1.1959   0.9205   0.6894   0.8004   1.4563   1.4172   0.9161   0.6658   0.6021   0.9014   1.0767   1.3493 11.9910
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THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD),RASD(IN %); 5.8809
  ANNUAL PRECIPITATION IS REDUCED BY; 0.1598 INCHES.
  EXCEEDENCE PROBABILITY IS 52.2935 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  13.9633 INCHES EACH YEAR, 52.2935% OF THE TIME.
 3)TWO RSD(LTN-2RASD),2RASD(IN %);11.7618
  ANNUAL PRECIPITATION IS REDUCED BY; 0.3197 INCHES.
  EXCEEDENCE PROBABILITY IS 54.5871 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  13.8034 INCHES EACH YEAR, 54.5871% OF THE TIME.
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                     JAN          FEB          MAR          APR          MAY          JUN          JUL          AUG          SEP          OCT          NOV          DEC
   *C=0.9
                  1.0763       0.8284       0.6205       0.7204       1.3107       1.2754       0.8245       0.5992       0.5418       0.8113       0.9690       1.2144
             CATCHMENT AREA =    88292 SQUARE FEET.   EFFECTIVE ANNUAL PRECIPITATION =10.7919 INCHES
 WATER YIELD (WY)
+++++FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
                  59242.       45597.       34152.       39650.       72140.       70202.       45381.       32979.       29824.       44654.       53337.       66842.
      SUM
                  59242.      104839.      138990.      178640.      250781.      320983.      366364.      399343.      429167.      473821.      527158.      594000.
WATER DEMAND (WD)
                  49500.       99000.      148500.      198000.      247500.      297000.      346500.      396000.      445500.      495000.      544500.      594000.
WATER BALANCE (WB)
                   9742.       -3903.      -15348.       -9850.       22640.       20702.       -4119.      -16521.      -19676.       -4846.        3837.       17342.
ANNUAL WATER DEFICIENCY=    74261
FOR CATCHMENT AREA=    88292
 WATER YIELD (WY)
                  59242.       45597.       34152.       39650.       72140.       70202.       45381.       32979.       29824.       44654.       53337.       66842.
 SUM(YR. 1-3)
                 153742.      199339.      233490.      273140.      345281.      415483.      460864.      493843.      523667.      568321.      621658.      688500.
                 747742.      793339.      827490.      867140.      939281.     1009483.     1054864.     1087843.     1117667.     1162321.     1215658.     1282500.
                1341742.     1387339.     1421490.     1461140.     1533281.     1603483.     1648864.     1681843.     1711667.     1756321.     1809658.     1876500.
WATER DEMAND (WD)
                   4500.        4500.        4500.        4500.       94500.       94500.       94500.       94500.       94500.       94500.        4500.        4500.
 SUM(YR. 1-3)
                   4500.        9000.       13500.       18000.      112500.      207000.      301500.      396000.      490500.      585000.      589500.      594000.
                 598500.      603000.      607500.      612000.      706500.      801000.      895500.      990000.     1084500.     1179000.     1183500.     1188000.
                1192500.     1197000.     1201500.     1206000.     1300500.     1395000.     1489500.     1584000.     1678500.     1773000.     1777500.     1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 149242.      190339.      219990.      255140.      232781.      208483.      159364.       97843.       33167.      -16679.       32158.       94500.
                 149242.      190339.      219990.      255140.      232781.      208483.      159364.       97843.       33167.      -16679.       32158.       94500.
                 149242.      190339.      219990.      255140.      232781.      208483.      159364.       97843.       33167.      -16679.       32158.       94500.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;     88292,  TANK SIZE;     316473
 WATER YIELD (WY)
                  59242.       45597.       34152.       39650.       72140.       70202.       45381.       32979.       29824.       44654.       53337.       66842.
 SUM(YR. 1-3)
                 215075.      260672.      294823.      334473.      406614.      476816.      522197.      555176.      585000.      629654.      682991.      749833.
                 809075.      854672.      888823.      928473.     1000614.     1070816.     1116197.     1149176.     1179000.     1223654.     1276991.     1343833.
                1403075.     1448672.     1482823.     1522473.     1594614.     1664816.     1710197.     1743176.     1773000.     1817654.     1870991.     1937833.
WATER DEMAND (WD)
                   4500.        4500.        4500.        4500.       94500.       94500.       94500.       94500.       94500.       94500.        4500.        4500.
 SUM(YR. 1-3)
                   4500.        9000.       13500.       18000.      112500.      207000.      301500.      396000.      490500.      585000.      589500.      594000.
                 598500.      603000.      607500.      612000.      706500.      801000.      895500.      990000.     1084500.     1179000.     1183500.     1188000.
                1192500.     1197000.     1201500.     1206000.     1300500.     1395000.     1489500.     1584000.     1678500.     1773000.     1777500.     1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 210575.      251672.      281323.      316473.      294114.      269816.      220697.      159176.       94500.       44654.       93491.      155833.
                 210575.      251672.      281323.      316473.      294114.      269816.      220697.      159176.       94500.       44654.       93491.      155833.
                 210575.      251672.      281323.      316473.      294114.      269816.      220697.      159176.       94500.       44654.       93491.      155833.
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 2)ONE RSD(LTN-RASD),RASD(IN %); 5.8809
                   JAN       FEB       MAR       APR       MAY       JUN       JUL       AUG       SEP       OCT       NOV       DEC
   *C=0.9
                1.0641    0.8190    0.6134    0.7122    1.2958    1.2610    0.8152    0.5924    0.5357    0.8021    0.9581    1.2006
+++ EFFECTIVE ANNUAL PRECIPITATION= 10.6697 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    88292,  TANK SIZE;   316473
 WATER YIELD (WY)
                58571.    45081.    33765.    39201.    71324.    69408.    44867.    32606.    29487.    44148.    52734.    66085.
 SUM(YR. 1-3)
               153071.   198152.   231917.   271119.   342443.   411850.   456717.   489324.   518810.   562959.   615692.   681778.
               740349.   785430.   819195.   858396.   929720.   999128.  1043995.  1076601.  1106088.  1150236.  1202970.  1269055.
              1327627.  1372708.  1406473.  1445674.  1516998.  1586406.  1631273.  1663879.  1693366.  1737514.  1790248.  1856333.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               148571.   189152.   218417.   253119.   229943.   204850.   155217.    93324.    28310.   -22041.    26192.    87778.
               141849.   182430.   211695.   246396.   223220.   198128.   148495.    86601.    21588.   -28764.    19470.    81055.
               135127.   175708.   204973.   239674.   216498.   191406.   141773.    79879.    14866.   -35486.    12748.    74333.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=     89302
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    89302,  CHANGE TANK SIZE TO;    316473
 WATER YIELD (WY)
                59242.    45597.    34152.    39650.    72140.    70202.    45381.    32979.    29824.    44654.    53337.    66842.
 SUM(YR. 1-3)
               215075.   260672.   294823.   334473.   406614.   476816.   522197.   555176.   585000.   629654.   682991.   749833.
               809075.   854672.   888823.   928473.  1000614.  1070816.  1116197.  1149176.  1179000.  1223654.  1276991.  1343833.
              1403075.  1448672.  1482823.  1522473.  1594614.  1664816.  1710197.  1743176.  1773000.  1817654.  1870991.  1937833.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               210575.   251672.   281323.   316473.   294114.   269816.   220697.   159176.    94500.    44654.    93491.   155833.
               210575.   251672.   281323.   316473.   294114.   269816.   220697.   159176.    94500.    44654.    93491.   155833.
               210575.   251672.   281323.   316473.   294114.   269816.   220697.   159176.    94500.    44654.    93491.   155833.
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 3)TWO RSD(LTN-2RASD);2RASD(IN %);11.7618
                     JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
  *C=0.9
                  1.0521     0.8098     0.6065     0.7042     1.2812     1.2467     0.8059     0.5857     0.5297     0.7930     0.9472     1.1871
FFF EFFECTIVE ANNUAL PRECIPITATION= 10.5490 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    89302,  TANK SIZE;    316473
 WATER YIELD (WY)
                  58571.     45081.     33765.     39201.     71324.     69408.     44867.     32606.     29487.     44148.     52734.     66085.
 SUM(YR. 1-3)
                 153071.    198152.    231917.    271119.    342443.    411850.    456717.    489324.    518810.    562959.    615692.    681778.
                 740349.    785430.    819195.    858396.    929720.    999128.   1043995.   1076601.   1106088.   1150236.   1202970.   1269055.
                1327627.   1372708.   1406473.   1445674.   1516998.   1586406.   1631273.   1663879.   1693366.   1737514.   1790248.   1856333.
WATER DEMAND (WD)
                   4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                   4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                 598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 148571.    189152.    218417.    253119.    229943.    204850.    155217.     93324.     28310.    -22041.     26192.     87778.
                 141849.    182430.    211695.    246396.    223220.    198128.    148495.     86601.     21588.    -28764.     19470.     81055.
                 135127.    175708.    204973.    239674.    216498.    191406.    141773.     79879.     14866.    -35486.     12748.     74333.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=    90324
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    90324,  CHANGE TANK SIZE TO;    316473
 WATER YIELD (WY)
                  59242.     45597.     34152.     39650.     72140.     70202.     45381.     32979.     29824.     44654.     53337.     66842.
 SUM(YR. 1-3)
                 215075.    260672.    294823.    334473.    406614.    476816.    522197.    555176.    585000.    629654.    682991.    749833.
                 809075.    854672.    888823.    928473.   1000614.   1070816.   1116197.   1149176.   1179000.   1223654.   1276991.   1343833.
                1403075.   1448672.   1482823.   1522473.   1594614.   1664816.   1710197.   1743176.   1773000.   1817654.   1870991.   1937833.
WATER DEMAND (WD)
                   4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                   4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                 598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 210575.    251672.    281323.    316473.    294114.    269816.    220697.    159176.     94500.     44654.     93491.    155833.
                 210575.    251672.    281323.    316473.    294114.    269816.    220697.    159176.     94500.     44654.     93491.    155833.
                 210575.    251672.    281323.    316473.    294114.    269816.    220697.    159176.     94500.     44654.     93491.    155833.
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*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  1
 WHAT PREC. CASE? LTN, 1RSD, OR 2RSD,...(IF LTN=1, 1RSD=2, --- 5RSD=5.,)
  1
 AT THE RECOMMENDED CASE #;  2, PREC.= 10.6697 INCHES.  CATCHMENT=    89301 SQ.FT.
                 59920.    46119.    34542.    40104.    72966.    71006.    45900.    33357.    30166.    45165.    53948.    67607.
 SUM(YR. 1-3)
                215753.   261872.   296414.   336518.   409484.   480490.   526390.   559747.   589913.   635078.   689025.   756632.
                816552.   862671.   897214.   937317.  1010284.  1081289.  1127190.  1160546.  1190712.  1235877.  1289825.  1357432.
               1417352.  1463470.  1498013.  1538117.  1611083.  1682089.  1727989.  1761346.  1791511.  1836676.  1890624.  1958231.
WATER DEMAND (WD)
                  4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                  4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
               1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                211253.   252872.   282914.   318518.   296984.   273490.   224890.   163747.    99413.    50078.    99525.   162632.
                218052.   259671.   289714.   325317.   303784.   280289.   231690.   170546.   106212.    56877.   106325.   169432.
                224852.   266470.   296513.   332117.   310583.   287089.   238489.   177346.   113011.    63676.   113124.   176231.
 DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
 E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;    88290
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  2
  CHANGE FOR CATTLE;
 HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
     E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200 15  5 10
 400 15  5 10
  CHANGE FOR WILDLIFE;
 HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
     E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200 15  5 10
  20 15  1 12
                 59242.    45597.    34152.    39650.    72140.    70202.    45381.    32979.    29824.    44654.    53337.    66842.
 SUM(YR. 1-3)
                215075.   260672.   294823.   334473.   406614.   476816.   522197.   555176.   585000.   629654.   682991.   749833.
                809075.   854672.   888823.   928473.  1000614.  1070816.  1116197.  1149176.  1179000.  1223654.  1276991.  1343833.
               1403075.  1448672.  1482823.  1522473.  1594614.  1664816.  1710197.  1743176.  1773000.  1817654.  1870991.  1937833.
WATER DEMAND (WD)
                  9000.     9000.     9000.     9000.   189000.   189000.   189000.   189000.   189000.   189000.     9000.     9000.
 SUM(YR. 1-3)
                  9000.    18000.    27000.    36000.   225000.   414000.   603000.   792000.   981000.  1170000.  1179000.  1188000.
               1197000.  1206000.  1215000.  1224000.  1413000.  1602000.  1791000.  1980000.  2169000.  2358000.  2367000.  2376000.
               2385000.  2394000.  2403000.  2412000.  2601000.  2790000.  2979000.  3168000.  3357000.  3546000.  3555000.  3564000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                206075.   242672.   267823.   298473.   181614.    62816.   -80803.  -236824.  -396000.  -540346.  -496009.  -438167.
               -387925.  -351328.  -326177.  -295527.  -412386.  -531184.  -674803.  -830824.  -990000. -1134346. -1090009. -1032167.
               -981925.  -945328.  -920177.  -889527. -1006386. -1125184. -1268803. -1424824. -1584000. -1728346. -1684009. -1626167.
 DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
 E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;   178602
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*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  3
 CHANGE CATCHMENT SIZE;
 HOW MANY SQ.FT.? E.G., 55000 ENTER    55000
    92000
             61032.       46975.       35184.       40848.       74321.       72324.       46752.       33976.       30726.       46003.       54949.       68862.
 SUM(YR. 1-3)
            216865.      263840.      299024.      339873.      414193.      486517.      533269.      567246.      597971.      643974.      698924.      767786.
            828818.      875793.      910977.      951825.     1026146.     1098470.     1145222.     1179198.     1209924.     1255927.     1310877.     1379739.
           1440771.     1487746.     1522930.     1563778.     1638099.     1710423.     1757175.     1791151.     1821877.     1867880.     1922830.     1991692.
WATER DEMAND (WD)
              4500.        4500.        4500.        4500.       94500.       94500.       94500.       94500.       94500.       94500.        4500.        4500.
 SUM(YR. 1-3)
              4500.        9000.       13500.       18000.      112500.      207000.      301500.      396000.      490500.      585000.      589500.      594000.
            598500.      603000.      607500.      612000.      706500.      801000.      895500.      990000.     1084500.     1179000.     1183500.     1188000.
           1192500.     1197000.     1201500.     1206000.     1300500.     1395000.     1489500.     1584000.     1678500.     1773000.     1777500.     1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
            212365.      254840.      285524.      321873.      301693.      279517.      231769.      171246.      107471.       58974.      109424.      173786.
            230318.      272793.      303477.      339825.      319646.      297470.      249722.      189198.      125424.       76927.      127377.      191739.
            248271.      290746.      321430.      357778.      337599.      315423.      267675.      207151.      143377.       94880.      145330.      209692.
 DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
 E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;   611952
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  4
 CHANGE TANK VOLUME;
 HOW MANY GALLONS? E.G., 88000 ENTER    88000
   300000
             59242.       45597.       34152.       39650.       72140.       70202.       45381.       32979.       29824.       44654.       53337.       66842.
 SUM(YR. 1-3)
            215075.      260672.      294823.      334473.      406614.      476816.      522197.      555176.      585000.      629654.      682991.      749833.
            809075.      854672.      888823.      928473.     1000614.     1070816.     1116197.     1149176.     1179000.     1223654.     1276991.     1343833.
           1403075.     1448672.     1482823.     1522473.     1594614.     1664816.     1710197.     1743176.     1773000.     1817654.     1870991.     1937833.
WATER DEMAND (WD)
              4500.        4500.        4500.        4500.       94500.       94500.       94500.       94500.       94500.       94500.        4500.        4500.
 SUM(YR. 1-3)
              4500.        9000.       13500.       18000.      112500.      207000.      301500.      396000.      490500.      585000.      589500.      594000.
            598500.      603000.      607500.      612000.      706500.      801000.      895500.      990000.     1084500.     1179000.     1183500.     1188000.
           1192500.     1197000.     1201500.     1206000.     1300500.     1395000.     1489500.     1584000.     1678500.     1773000.     1777500.     1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
            210575.      251672.      281323.      316473.      294114.      269816.      220697.      159176.       94500.       44654.       93491.      155833.
            210575.      251672.      281323.      316473.      294114.      269816.      220697.      159176.       94500.       44654.       93491.      155833.
            210575.      251672.      281323.      316473.      294114.      269816.      220697.      159176.       94500.       44654.       93491.      155833.
 WATER WILL SPILL OUT IN; MONTH #= 4 WATER BAL.(GAL.)=  316473. WATER WASTE=    16473
 TOTAL WASTE(GAL./YEAR)=    16473
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                 TABLE D-2-2; COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
                              FOR COW CREEK WATERSHED, WINNEMUCCA DISTRICT, NEVADA.
                                        RAIN CAN #; 10
                                        LOCATION; LAT.= 40°43' N.
                                                  LON.=118°45' W.
                                        ELEVATION;  4800 FT.
                                        WATER REQUIREMENT;
                                            CATTLE:  200 HEAD AT 15 GPD. MAY-OCT INCLUSIVE.    540000.0 GALLONS/YEAR
                                            HORSES:   10 HEAD AT 15 GPD. JAN-DEC INCLUSIVE.     54000.0 GALLONS/YEAR
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                 JAN     FEB     MAR     APR     MAY     JUN     JUL     AUG     SEP     OCT     NOV     DEC  ANNUAL
RAIN(INCHES)  0.8376  0.6644  0.5367  0.5019  0.8319  0.7882  0.6741  0.5697  0.4624  0.5507  0.6618  0.8873  7.9666
 ANNUAL STANDARD DEVIATION
              0.2115  0.1677  0.1355  0.1267  0.2100  0.1990  0.1702  0.1438  0.1167  0.1390  0.1671  0.2240  2.0113
 DAYS>=.01"
              6.2698  5.6956  5.3415  4.1364  7.0670  5.2411  4.6153  4.3123  3.6496  3.8209  4.3781  5.1939 59.7216
 DAYS>=.10"
              3.1489  2.8760  2.2485  1.7769  3.4412  2.9054  2.0641  2.1007  1.9958  2.0700  2.3898  3.3007 30.3180
 AMOUNT <.1"
              0.1560  0.1410  0.1547  0.1180  0.1813  0.1168  0.1276  0.1106  0.0827  0.0875  0.0994  0.0947  1.4702
 RAINS >=.1"
              0.6815  0.5234  0.3820  0.3839  0.6506  0.6714  0.5466  0.4591  0.3797  0.4632  0.5624  0.7926  6.4965
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THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD),RASD(IN %);22.7892
  ANNUAL PRECIPITATION IS REDUCED BY; 0.4584 INCHES.
  EXCEEDENCE PROBABILITY IS 58.9575 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN   7.5083 INCHES EACH YEAR, 58.9575% OF THE TIME.
 3)TWO RSD(LTN-2RASD),2RASD(IN %);45.5783
  ANNUAL PRECIPITATION IS REDUCED BY; 0.9167 INCHES.
  EXCEEDENCE PROBABILITY IS 67.7456 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN   7.0499 INCHES EACH YEAR, 67.7456% OF THE TIME.
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                      JAN          FEB          MAR          APR          MAY          JUN          JUL          AUG          SEP          OCT          NOV          DEC
  *C=0.9
                   0.6134       0.4711       0.3438       0.3455       0.5855       0.6043       0.4919       0.4132       0.3417       0.4169       0.5061       0.7134
              CATCHMENT AREA =  162967 SQUARE FEET.   EFFECTIVE ANNUAL PRECIPITATION = 5.8468 INCHES
 WATER YIELD (WY)
+I+++FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
                   62315.       47857.       34930.       35105.       59486.       61391.       49975.       41980.       34718.       42349.       51420.       72474.
     SUM
                   62315.      110172.      145102.      180206.      239692.      301083.      351058.      393038.      427757.      470106.      521526.      594000.
WATER DEMAND (WD)
                   49500.       99000.      148500.      198000.      247500.      297000.      346500.      396000.      445500.      495000.      544500.      594000.
WATER BALANCE (WB)
                   12815.       -1643.      -14570.      -14395.        9986.       11891.         475.       -7520.      -14782.       -7151.        1920.       22974.
ANNUAL WATER DEFICIENCY=     60056
FOR CATCHMENT AREA=   162967
 WATER YIELD (WY)
                   62315.       47857.       34930.       35105.       59486.       61391.       49975.       41980.       34718.       42349.       51420.       72474.
 SUM(YR. 1-3)
                  156815.      204672.      239602.      274706.      334192.      395583.      445558.      487538.      522257.      564606.      616026.      688500.
                  750815.      798672.      833602.      868706.      928192.      989583.     1039558.     1081538.     1116257.     1158606.     1210026.     1282500.
                 1344815.     1392672.     1427602.     1462706.     1522192.     1583583.     1633558.     1675538.     1710257.     1752606.     1804026.     1876500.
WATER DEMAND (WD)
                    4500.        4500.        4500.        4500.       94500.       94500.       94500.       94500.       94500.       94500.        4500.        4500.
 SUM(YR. 1-3)
                    4500.        9000.       13500.       18000.      112500.      207000.      301500.      396000.      490500.      585000.      589500.      594000.
                  598500.      603000.      607500.      612000.      706500.      801000.      895500.      990000.     1084500.     1179000.     1183500.     1188000.
                 1192500.     1197000.     1201500.     1206000.     1300500.     1395000.     1489500.     1584000.     1678500.     1773000.     1777500.     1782000.
WATER BAI ANCE (WB)
 SUM(YR. 1-3)
                  152315.      195672.      226102.      256706.      221692.      188583.      144058.       91538.       31757.      -20394.       26526.       94500.
                  152315.      195672.      226102.      256706.      221692.      188583.      144058.       91538.       31757.      -20394.       26526.       94500.
                  152315.      195672.      226102.      256706.      221692.      188583.      144058.       91538.       31757.      -20394.       26526.       94500.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   162967,  TANK SIZE;    319450
 WATER YIELD (WY)
                   62315.       47857.       34930.       35105.       59486.       61391.       49975.       41980.       34718.       42349.       51420.       72474.
 SUM(YR. 1-3)
                  219559.      267416.      302346.      337450.      396936.      458327.      508302.      550282.      585001.      627350.      678770.      751244.
                  813559.      861416.      896346.      931450.      990936.     1052327.     1102302.     1144282.     1179001.     1221350.     1272770.     1345244.
                 1407559.     1455416.     1490346.     1525450.     1584936.     1646327.     1696302.     1738282.     1773001.     1815350.     1866770.     1939244.
WATER DEMAND (WD)
                    4500.        4500.        4500.        4500.       94500.       94500.       94500.       94500.       94500.       94500.        4500.        4500.
 SUM(YR. 1-3)
                    4500.        9000.       13500.       18000.      112500.      207000.      301500.      396000.      490500.      585000.      589500.      594000.
                  598500.      603000.      607500.      612000.      706500.      801000.      895500.      990000.     1084500.     1179000.     1183500.     1188000.
                 1192500.     1197000.     1201500.     1206000.     1300500.     1395000.     1489500.     1584000.     1678500.     1773000.     1777500.     1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                  215059.      258416.      288846.      319450.      284436.      251327.      206802.      154282.       94501.       42350.       89270.      157244.
                  215059.      258416.      288846.      319450.      284436.      251327.      206802.      154282.       94501.       42350.       89270.      157244.
                  215059.      258416.      288846.      319450.      284436.      251327.      206802.      154282.       94501.       42350.       89270.      157244.
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 2)ONE RSD(LIN-RASD),RASD(IN %);22.7892
                  JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
   #C=0.9
               0.5781     0.4440     0.3240     0.3257     0.5518     0.5695     0.4636     0.3894     0.3221     0.3929     0.4770     0.6723
+++ EFFECTIVE ANNUAL PRECIPITATION=  5.5104 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    162967,  TANK SIZE;    319450
 WATER YIELD (WY)
               58730.     45103.     32920.     33085.     56063.     57859.     47100.     39565.     32721.     39913.     48461.     68304.
 SUM(YR. 1-3)
              153230.    198333.    231253.    264338.    320401.    378260.    425360.    464925.    497645.    537558.    586020.    654324.
              713053.    758157.    791077.    824162.    880225.    938084.    985184.   1024748.   1057469.   1097382.   1145844.   1214148.
             1272877.   1317980.   1350901.   1383986.   1440049.   1497908.   1545008.   1584572.   1617293.   1657206.   1705667.   1773971.
WATER DEMAND (WD)
                4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
              598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
             1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
              148730.    189333.    217753.    246338.    207901.    171260.    123860.     68925.      7145.    -47442.     -3480.     60324.
              114553.    155157.    183577.    212162.    173725.    137084.     89684.     34748.    -27031.    -81618.    -37656.     26148.
               80377.    120980.    149401.    177986.    139549.    102908.     55508.       572.    -61207.   -115794.    -71833.     -8029.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=   172915
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   172915,  CHANGE TANK SIZE TO;   319450
 WATER YIELD (WY)
               62315.     47857.     34930.     35105.     59486.     61391.     49975.     41980.     34718.     42349.     51420.     72474.
 SUM(YR. 1-3)
              219559.    267416.    302346.    337450.    396936.    458327.    508302.    550282.    585001.    627350.    678770.    751244.
              813559.    861416.    896346.    931450.    990936.   1052327.   1102302.   1144282.   1179001.   1221350.   1272770.   1345244.
             1407559.   1455416.   1490346.   1525450.   1584936.   1646327.   1696302.   1738282.   1773001.   1815350.   1866770.   1939244.
WATER DEMAND (WD)
                4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
              598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
             1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
              215059.    258416.    288846.    319450.    284436.    251327.    206802.    154282.     94501.     42350.     89270.    157244.
              215059.    258416.    288846.    319450.    284436.    251327.    206802.    154282.     94501.     42350.     89270.    157244.
              215059.    258416.    288846.    319450.    284436.    251327.    206802.    154282.     94501.     42350.     89270.    157244.
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 3)TWO RSD(LTN-2RASD),2RASD(IN %);45.5783
                          JAN       FEB       MAR       APR       MAY       JUN       JUL       AUG       SEP       OCT       NOV       DEC
   *C=0.9
                       0.5448    0.4184    0.3054    0.3069    0.5201    0.5367    0.4369    0.3670    0.3035    0.3703    0.4496    0.6336
+++ EFFECTIVE ANNUAL PRECIPITATION=  5.1934 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   172915,  TANK SIZE;   319450
 WATER YIELD (WY)
                       58730.    45103.    32920.    33085.    56063.    57859.    47100.    39565.    32721.    39913.    48461.    68304.
 SUM(YR. 1-3)
                      153230.   198333.   231253.   264338.   320401.   378260.   425360.   464925.   497645.   537558.   586020.   654324.
                      713053.   758157.   791077.   824162.   880225.   938084.   985184.  1024748.  1057469.  1097382.  1145844.  1214148.
                     1272877.  1317980.  1350901.  1383986.  1440049.  1497908.  1545008.  1584572.  1617293.  1657206.  1705667.  1773971.
WATER DEMAND (WD)
                        4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                        4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                      598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                     1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                      148730.   189333.   217753.   246338.   207901.   171260.   123860.    68925.     7145.   -47442.    -3480.    60324.
                      114553.   155157.   183577.   212162.   173725.   137084.    89684.    34748.   -27031.   -81618.   -37656.    26148.
                       80377.   120980.   149401.   177986.   139549.   102908.    55508.      572.   -61207.  -115794.   -71833.    -8029.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD, THE CATCHMENT AREA (SQ. FT.)=   183471
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   183471,  CHANGE TANK SIZE TO;   319450
 WATER YIELD (WY)
                       62315.    47857.    34930.    35105.    59486.    61391.    49975.    41980.    34718.    42349.    51420.    72474.
 SUM(YR. 1-3)
                      219559.   267416.   302346.   337450.   396936.   458327.   508302.   550282.   585001.   627350.   678770.   751244.
                      813559.   861416.   896346.   931450.   990936.  1052327.  1102302.  1144282.  1179001.  1221350.  1272770.  1345244.
                     1407559.  1455416.  1490346.  1525450.  1584936.  1646327.  1696302.  1738282.  1773001.  1815350.  1866770.  1939244.
WATER DEMAND (WD)
                        4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                        4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                      598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                     1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                      215059.   258416.   288846.   319450.   284436.   251327.   206802.   154282.    94501.    42350.    89270.   157244.
                      215059.   258416.   288846.   319450.   284436.   251327.   206802.   154282.    94501.    42350.    89270.   157244.
                      215059.   258416.   288846.   319450.   284436.   251327.   206802.   154282.    94501.    42350.    89270.   157244.
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 FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                               PARAMETERS
  PRECIPITATION             ANNUAL WD  CATCHMENT        TANK
  CASE NAME  IN./YR.             GAL.     SQ.FT.        GAL.
    1   LTN   5.8468         594000     162966      319450
    2  1RSD   5.5104         594000     172914      319450
    3  2RSD   5.1934         594000     183470      319450
    4  3RSD   4.8946         594000     194671      319450
    5  4RSD   4.6130         594000     206555      319450
 SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.24, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE THE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
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                   TABLE D-3-1; COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
                                  FOR EASTGATE WATERSHED, CARSON CITY DISTRICT, NEVADA.
                                             RAIN CAN #;  6
                                             LOCATION; LAT.= 39°19' N.
                                                        LON.=117°52' W.
                                             ELEVATION;  6200 FT.
                                             WATER REQUIREMENT;
                                                  CATTLE:  200 HEAD AT 15 GPD. MAY-OCT INCLUSIVE.     540000.0 GALLONS/YEAR
                                                  HORSES:   10 HEAD AT 15 GPD. JAN-DEC INCLUSIVE.      54000.0 GALLONS/YEAR
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                   JAN      FEB      MAR      APR      MAY      JUN      JUL      AUG      SEP      OCT      NOV      DEC   ANNUAL
RAIN(INCHES)    0.9535   0.9371   1.0259   1.1141   1.1322   0.7430   0.8082   0.8338   0.6642   0.8592   0.8433   0.9252  10.8396
 ANNUAL STANDARD DEVIATION
                0.2552   0.2508   0.2746   0.2982   0.3030   0.1989   0.2163   0.2232   0.1778   0.2300   0.2257   0.2476   2.9012
 DAYS>=.01"
                5.8079   5.9505   6.4580   6.0147   7.3876   4.5671   4.9451   5.2552   4.3147   5.0264   4.6024   4.3603  64.6899
 DAYS>=.10"
                3.1278   3.5570   3.3666   3.2857   3.9961   2.3420   2.4681   2.8489   2.4390   2.7333   2.3329   2.6613  35.1587
 AMOUNT <.1"
                0.1340   0.1197   0.1546   0.1365   0.1696   0.1113   0.1238   0.1203   0.0938   0.1147   0.1135   0.0849   1.4766
 RAINS >=.1"
                0.8195   0.8174   0.8714   0.9776   0.9626   0.6317   0.6844   0.7135   0.5704   0.7445   0.7298   0.8402   9.3631
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THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD),RASD(IN %);21.6029
  ANNUAL PRECIPITATION IS REDUCED BY; 0.6267 INCHES.
  EXCEEDENCE PROBABILITY IS 58.4652 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  10.2129 INCHES EACH YEAR, 58.4652% OF THE TIME.
 3)TWO RSD(LTN-2RASD),2RASD(IN %);43.2058
  ANNUAL PRECIPITATION IS REDUCED BY; 1.2535 INCHES.
  EXCEEDENCE PROBABILITY IS 67.0457 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN   9.5862 INCHES EACH YEAR, 67.0457% OF THE TIME.
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                   JAN       FEB       MAR       APR       MAY       JUN       JUL       AUG       SEP       OCT       NOV       DEC
   *C=0.9
                0.7376    0.7357    0.7842    0.8799    0.8663    0.5685    0.6160    0.6421    0.5134    0.6701    0.6568    0.7552
            CATCHMENT AREA =  113072 SQUARE FEET.   EFFECTIVE ANNUAL PRECIPITATION = 8.4268 INCHES
 WATER YIELD (WY)
+++++FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
                51991.    51858.    55281.    62021.    61068.    40076.    43419.    45263.    36189.    47233.    46298.    53305.
      SUM
                51991.   103849.   159130.   221151.   282219.   322294.   365713.   410976.   447164.   494397.   540695.   594000.
WATER DEMAND (WD)
                49500.    99000.   148500.   198000.   247500.   297000.   346500.   396000.   445500.   495000.   544500.   594000.
WATER BALANCE (WB)
                 2491.     2358.     5781.    12521.    11568.    -9424.    -6081.    -4237.   -13311.    -2267.    -3202.     3805.
ANNUAL WATER DEFICIENCY=    38521
FOR CATCHMENT AREA=   113072
 WATER YIELD (WY)
                51991.    51858.    55281.    62021.    61068.    40076.    43419.    45263.    36189.    47233.    46298.    53305.
 SUM(YR. 1-3)
               146491.   198349.   253630.   315651.   376719.   416794.   460213.   505476.   541664.   588897.   635195.   688500.
               740491.   792349.   847630.   909651.   970719.  1010794.  1054213.  1099476.  1135664.  1182897.  1229195.  1282500.
              1334491.  1386349.  1441630.  1503651.  1564719.  1604794.  1648213.  1693476.  1729664.  1776897.  1823195.  1876500.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500;    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               141991.   189349.   240130.   297651.   264219.   209794.   158713.   109476.    51164.     3897.    45695.    94500.
               141991.   189349.   240130.   297651.   264219.   209794.   158713.   109476.    51164.     3897.    45695.    94500.
               141991.   189349.   240130.   297651.   264219.   209794.   158713.   109476.    51164.     3897.    45695.    94500.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   113072,  TANK SIZE;    340986
 WATER YIELD (WY)
                51991.    51858.    55281.    62021.    61068.    40076.    43419.    45263.    36189.    47233.    46298.    53305.
 SUM(YR. 1-3)
               189827.   241685.   296966.   358987.   420055.   460130.   503549.   548812.   585000.   632233.   678531.   731836.
               783827.   835685.   890966.   952987.  1014055.  1054130.  1097549.  1142812.  1179000.  1226233.  1272531.  1325836.
              1377827.  1429685.  1484966.  1546987.  1608055.  1648130.  1691549.  1736812.  1773000.  1820233.  1866531.  1919836.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               185327.   232685.   283466.   340987.   307555.   253130.   202049.   152812.    94500.    47233.    89031.   137836.
               185327.   232685.   283466.   340987.   307555.   253130.   202049.   152812.    94500.    47233.    89031.   137836.
               185327.   232685.   283466.   340987.   307555.   253130.   202049.   152812.    94500.    47233.    89031.   137836.
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 2)ONE RSD(LTN-RASD),RASD(IN %);21.6029
                  JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
  *C=0.9
                0.6949     0.6932     0.7389     0.8290     0.8163     0.5357     0.5803     0.6050     0.4837     0.6313     0.6188     0.7125
+++ EFFECTIVE ANNUAL PRECIPITATION=  7.9395 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   113072,  TANK SIZE;   340986
 WATER YIELD (WY)
                48985.     48860.     52084.     58435.     57537.     37759.     40908.     42646.     34096.     44502.     43621.     50223.
 SUM(YR. 1-3)
               143485.    192344.    244429.    302864.    360401.    398159.    439067.    481713.    515809.    560311.    603932.    654155.
               703140.    751999.    804084.    862519.    920056.    957814.    998722.   1041368.   1075464.   1119966.   1163587.   1213810.
              1262795.   1311655.   1363739.   1422174.   1479711.   1517469.   1558378.   1601023.   1635119.   1679621.   1723242.   1773465.
WATER DEMAND (WD)
                 4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                 4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
               598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
              1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               138985.    183344.    230929.    284864.    247901.    191159.    137567.     85713.     25309.    -24689.     14432.     60155.
               104640.    148999.    196584.    250519.    213556.    156814.    103222.     51368.     -9036.    -59034.    -19913.     25810.
                70295.    114655.    162239.    216174.    179211.    122469.     68878.     17023.    -43381.    -93379.    -54258.     -8535.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=    120011
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   120011,  CHANGE TANK SIZE TO;    340986
 WATER YIELD (WY)
                51991.     51858.     55281.     62021.     61068.     40076.     43419.     45263.     36189.     47233.     46298.     53305.
 SUM(YR. 1-3)
               189827.    241685.    296966.    358987.    420055.    460130.    503549.    548812.    585000.    632233.    678531.    731836.
               783827.    835685.    890966.    952987.   1014055.   1054130.   1097549.   1142812.   1179000.   1226233.   1272531.   1325836.
              1377827.   1429685.   1484966.   1546987.   1608055.   1648130.   1691549.   1736812.   1773000.   1820233.   1866531.   1919836.
WATER DEMAND (WD)
                 4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                 4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
               598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
              1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               185327.    232685.    283466.    340987.    307555.    253130.    202049.    152812.     94500.     47233.     89031.    137836.
               185327.    232685.    283466.    340987.    307555.    253130.    202049.    152812.     94500.     47233.     89031.    137836.
               185327.    232685.    283466.    340987.    307555.    253130.    202049.    152812.     94500.     47233.     89031.    137836.
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 3)TWO RSD(LTN-2RASD),2RASD(IN %);43.2058
                   JAN       FEB       MAR       APR       MAY       JUN       JUL       AUG       SEP       OCT       NOV       DEC
   *C=0.9
                0.6547    0.6531    0.6962    0.7811    0.7691    0.5047    0.5468    0.5700    0.4557    0.5948    0.5830    0.6713
+++ EFFECTIVE ANNUAL PRECIPITATION=  7.4805 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   120011,  TANK SIZE;   340986
 WATER YIELD (WY)
                48985.    48860.    52084.    58435.    57537.    37759.    40908.    42646.    34096.    44502.    43621.    50223.
 SUM(YR. 1-3)
               143485.   192344.   244429.   302864.   360401.   398159.   439067.   481713.   515809.   560311.   603932.   654155.
               703140.   751999.   804084.   862519.   920056.   957814.   998722.  1041368.  1075464.  1119966.  1163587.  1213810.
              1262795.  1311655.  1363739.  1422174.  1479711.  1517469.  1558378.  1601023.  1635119.  1679621.  1723242.  1773465.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               138985.   183344.   230929.   284864.   247901.   191159.   137567.    85713.    25309.   -24689.    14432.    60155.
               104640.   148999.   196584.   250519.   213556.   156814.   103222.    51368.    -9036.   -59034.   -19913.    25810.
                70295.   114655.   162239.   216174.   179211.   122469.    68878.    17023.   -43381.   -93379.   -54258.    -8535.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=   127375
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   127375,  CHANGE TANK SIZE TO;   340986
 WATER YIELD (WY)
                51991.    51858.    55281.    62021.    61068.    40076.    43419.    45263.    36189.    47233.    46298.    53305.
 SUM(YR. 1-3)
               189827.   241685.   296966.   358987.   420055.   460130.   503549.   548812.   585000.   632233.   678531.   731836.
               783827.   835685.   890966.   952987.  1014055.  1054130.  1097549.  1142812.  1179000.  1226233.  1272531.  1325836.
              1377827.  1429685.  1484966.  1546987.  1608055.  1648130.  1691549.  1736812.  1773000.  1820233.  1866531.  1919836.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               185327.   232685.   283466.   340987.   307555.   253130.   202049.   152812.    94500.    47233.    89031.   137836.
               185327.   232685.   283466.   340987.   307555.   253130.   202049.   152812.    94500.    47233.    89031.   137836.
               185327.   232685.   283466.   340987.   307555.   253130.   202049.   152812.    94500.    47233.    89031.   137836.
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 FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                      PARAMETERS
  PRECIPITATION       ANNUAL WD  CATCHMENT        TANK
  CASE NAME  IN./YR.       GAL.     SQ.FT.        GAL.
    1   LTN   8.4268     594000     113071      340986
    2  1RSD   7.9395     594000     120009      340986
    3  2RSD   7.4805     594000     127374      340986
    4  3RSD   7.0480     594000     135191      340986
    5  4RSD   6.6404     594000     143487      340986
 SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.23, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  5
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TABLE D-3-2; COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
             FOR CHURCHILL CANYON WATERSHED, CARSON CITY DISTRICT, NEVADA.
                       RAIN CAN #;  1
                       LOCATION; LAT.= 39° 2' N.
                                 LON.=119°17' W.
                       ELEVATION;  4620 FT.
                       WATER REQUIREMENT;
                           CATTLE:  200 HEAD AT 15 GPD. MAY-OCT INCLUSIVE.    540000.0 GALLONS/YEAR
                           HORSES:   10 HEAD AT 15 GPD. JAN-DEC INCLUSIVE.     54000.0 GALLONS/YEAR
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                    JAN     FEB     MAR     APR     MAY     JUN     JUL     AUG     SEP     OCT     NOV     DEC  ANNUAL
RAIN(INCHES)     0.9043  0.7286  0.6030  0.4247  0.5095  0.4308  0.6515  0.6545  0.4631  0.4212  0.5849  0.8935  7.2694
 ANNUAL STANDARD DEVIATION
                 0.2808  0.2262  0.1873  0.1319  0.1582  0.1338  0.2023  0.2032  0.1438  0.1308  0.1816  0.2775  2.2574
 DAYS>=.01"
                 5.4655  4.9152  4.6517  3.6957  4.8814  2.8461  4.0564  4.1248  3.0892  3.0213  3.7070  4.0869 48.5411
 DAYS>=.10"
                 2.9537  2.9394  2.2132  1.6221  2.1892  1.4191  2.0535  2.2392  1.7345  1.5063  1.6750  2.4569 25.0020
 AMOUNT >=.1"
                 0.1256  0.0988  0.1219  0.1037  0.1346  0.0714  0.1001  0.0943  0.0677  0.0758  0.1016  0.0815  1.1770
 RAINS >=.1"
                 0.7787  0.6298  0.4811  0.3210  0.3749  0.3594  0.5513  0.5602  0.3953  0.3454  0.4833  0.8120  6.0925
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THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD)-RASD(IN %);35.6012
  ANNUAL PRECIPITATION IS REDUCED BY; 0.8037 INCHES.
  EXCEEDENCE PROBABILITY IS 64.2745 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN   6.4658 INCHES EACH YEAR, 64.2745% OF THE TIME.
 3)TWO RSD(LTN-2RASD);2RASD(IN %);71.2024
  ANNUAL PRECIPITATION IS REDUCED BY; 1.6073 INCHES.
  EXCEEDENCE PROBABILITY IS 75.6968 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN   5.6621 INCHES EACH YEAR, 75.6968% OF THE TIME.
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                           JAN          FEB          MAR          APR          MAY          JUN          JUL          AUG          SEP          OCT          NOV          DEC
   *C=0.9
                        0.7008       0.5668       0.4330       0.2889       0.3374       0.3235       0.4962       0.5042       0.3558       0.3109       0.4350       0.7308
          CATCHMENT AREA =  173772 SQUARE FEET.   EFFECTIVE ANNUAL PRECIPITATION = 5.4832 INCHES
 WATER YIELD (WY)
+++++FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
                        75918.       61403.       46906.       31301.       36551.       35041.       53755.       54617.       38545.       33677.       47118.       79167.
      SUM
                        75918.      137322.      184228.      215529.      252080.      287121.      340876.      395493.      434038.      467715.      514833.      594000.
WATER DEMAND (WD)
                        49500.       99000.      148500.      198000.      247500.      297000.      346500.      396000.      445500.      495000.      544500.      594000.
WATER BALANCE (WB)
                        26418.       11903.       -2594.      -18199.      -12949.      -14459.        4255.        5117.      -10955.      -15823.       -2382.       29667.
ANNUAL WATER DEFICIENCY=     77358
FOR CATCHMENT AREA=   173772
 WATER YIELD (WY)
                        75918.       61403.       46906.       31301.       36551.       35041.       53755.       54617.       38545.       33677.       47118.       79167.
 SUM(YR. 1-3)
                       170418.      231822.      278728.      310029.      346580.      381621.      435376.      489993.      528538.      562215.      609333.      688500.
                       764418.      825822.      872728.      904029.      940580.      975621.     1029376.     1083993.     1122538.     1156215.     1203333.     1282500.
                      1358418.     1419821.     1466728.     1498029.     1534580.     1569621.     1623376.     1677993.     1716538.     1750215.     1797333.     1876500.
WATER DEMAND (WD)
                         4500.        4500.        4500.        4500.       94500.       94500.       94500.       94500.       94500.       94500.        4500.        4500.
 SUM(YR. 1-3)
                         4500.        9000.       13500.       18000.      112500.      207000.      301500.      396000.      490500.      585000.      589500.      594000.
                       598500.      603000.      607500.      612000.      706500.      801000.      895500.      990000.     1084500.     1179000.     1183500.     1188000.
                      1192500.     1197000.     1201500.     1206000.     1300500.     1395000.     1489500.     1584000.     1678500.     1773000.     1777500.     1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                       165918.      222822.      265228.      292029.      234080.      174621.      133876.       93993.       38038.      -22785.       19833.       94500.
                       165918.      222822.      265228.      292029.      234080.      174621.      133876.       93993.       38038.      -22785.       19833.       94500.
                       165918.      222821.      265228.      292029.      234080.      174621.      133876.       93993.       38038.      -22785.       19833.       94500.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   173772,  TANK SIZE;   348490
 WATER YIELD (WY)
                        75918.       61403.       46906.       31301.       36551.       35041.       53755.       54617.       38545.       33677.       47118.       79167.
 SUM(YR. 1-3)
                       226880.      288284.      335190.      366491.      403042.      438083.      491838.      546455.      585000.      618677.      665795.      744962.
                       820880.      882284.      929190.      960491.      997042.     1032083.     1085838.     1140455.     1179000.     1212677.     1259795.     1338962.
                      1414880.     1476283.     1523190.     1554491.     1591042.     1626083.     1679838.     1734455.     1773000.     1806677.     1853795.     1932962.
WATER DEMAND (WD)
                         4500.        4500.        4500.        4500.       94500.       94500.       94500.       94500.       94500.       94500.        4500.        4500.
 SUM(YR. 1-3)
                         4500.        9000.       13500.       18000.      112500.      207000.      301500.      396000.      490500.      585000.      589500.      594000.
                       598500.      603000.      607500.      612000.      706500.      801000.      895500.      990000.     1084500.     1179000.     1183500.     1188000.
                      1192500.     1197000.     1201500.     1206000.     1300500.     1395000.     1489500.     1584000.     1678500.     1773000.     1777500.     1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                       222380.      279284.      321690.      348491.      290542.      231083.      190338.      150455.       94500.       33677.       76295.      150962.
                       222380.      279284.      321690.      348491.      290542.      231083.      190338.      150455.       94500.       33677.       76295.      150962.
                       222380.      279283.      321690.      348491.      290542.      231083.      190338.      150455.       94500.       33677.       76295.      150962.
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 2)ONE RSD(LTN-RASD),RASD(IN %);35.6012
                       JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
   *C=0.9
                    0.6233     0.5042     0.3851     0.2570     0.3001     0.2877     0.4414     0.4484     0.3165     0.2765     0.3869     0.6500
+++ EFFECTIVE ANNUAL PRECIPITATION=  4.8771 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   173772,  TANK SIZE;   348490
 WATER YIELD (WY)
                    67525.     54615.     41721.     27841.     32510.     31167.     47812.     48579.     34284.     29954.     41909.     70415.
 SUM(YR. 1-3)
                   162025.    216640.    258361.    286202.    318712.    349879.    397691.    446270.    480554.    510508.    552417.    622832.
                   690357.    744972.    786693.    814533.    847044.    878211.    926023.    974602.   1008886.   1038840.   1080749.   1151164.
                  1218689.   1273304.   1315025.   1342865.   1375375.   1406543.   1454355.   1502934.   1537218.   1567172.   1609081.   1679496.
WATER DEMAND (WD)
                     4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                     4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                   598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                  1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                   157525.    207640.    244861.    268202.    206212.    142879.     96191.     50270.     -9946.    -74492.    -37083.     28832.
                    91857.    141972.    179193.    202533.    140544.     77211.     30523.    -15398.    -75614.   -140160.   -102751.    -36836.
                    26189.     76304.    113525.    136865.     74875.     11543.    -35145.    -81066.   -141282.   -205828.   -168419.   -102504.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=   195370
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   195370,  CHANGE TANK SIZE TO;   348490
 WATER YIELD (WY)
                    75918.     61403.     46906.     31301.     36551.     35041.     53755.     54617.     38545.     33677.     47118.     79167.
 SUM(YR. 1-3)
                   226880.    288284.    335190.    366491.    403042.    438083.    491838.    546455.    585000.    618677.    665795.    744962.
                   820880.    882284.    929190.    960491.    997042.   1032083.   1085838.   1140455.   1179000.   1212677.   1259795.   1338962.
                  1414880.   1476283.   1523190.   1554491.   1591042.   1626083.   1679838.   1734455.   1773000.   1806677.   1853795.   1932962.
WATER DEMAND (WD)
                     4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                     4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                   598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                  1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                   222380.    279284.    321690.    348491.    290542.    231083.    190338.    150455.     94500.     33677.     76295.    150962.
                   222380.    279284.    321690.    348491.    290542.    231083.    190338.    150455.     94500.     33677.     76295.    150962.
                   222380.    279283.    321690.    348491.    290542.    231083.    190338.    150455.     94500.     33677.     76295.    150962.
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 3)TWU RSD(LTN-2RASD),2RASD(IN %);71,2024
                   JAN       FEB       MAR       APR       MAY       JUN       JUL       AUG       SEP       OCT       NOV       DEC
   *C=0.9
                0.5544    0.4484    0.3425    0.2286    0.2669    0.2559    0.3926    0.3989    0.2815    0.2459    0.3441    0.5781
+++ EFFECTIVE ANNUAL PRECIPITATION=  4.3379 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   195370,  TANK SIZE;   348490
 WATER YIELD (WY)
                67525.    54615.    41721.    27841.    32510.    31167.    47812.    48579.    34284.    29954.    41909.    70415.
 SUM(YR. 1-3)
               162025.   216640.   258361.   286202.   318712.   349879.   397691.   446270.   480554.   510508.   552417.   622832.
               690357.   744972.   786693.   814533.   847044.   878211.   926023.   974602.  1008886.  1038840.  1080749.  1151164.
              1218689.  1273304.  1315025.  1342865.  1375375.  1406543.  1454355.  1502934.  1537218.  1567172.  1609081.  1679496.
WATER DEMAND (WB)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               157525.   207640.   244861.   268202.   206212.   142879.    96191.    50270.    -9946.   -74492.   -37083.    28832.
                91857.   141972.   179193.   202533.   140544.    77211.    30523.   -15398.   -75614.  -140160.  -102751.   -36836.
                26189.    76304.   113525.   136865.    74875.    11543.   -35145.   -81066.  -141282.  -205828.  -168419.  -102504.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=   219653
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   219653,  CHANGE TANK SIZE TO;   348490
 WATER YIELD (WY)
                75918.    61403.    46906.    31301.    36551.    35041.    53755.    54617.    38545.    33677.    47118.    79167.
 SUM(YR. 1-3)
               226880.   288284.   335190.   366491.   403042.   438083.   491838.   546455.   585000.   618677.   665795.   744962.
               820880.   882284.   929190.   960491.   997042.  1032083.  1085838.  1140455.  1179000.  1212677.  1259795.  1338962.
              1414880.  1476283.  1523190.  1554491.  1591042.  1626083.  1679838.  1734455.  1773000.  1806677.  1853795.  1932962.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               222380.   279284.   321690.   348491.   290542.   231083.   190338.   150455.    94500.    33677.    76295.   150962.
               222380.   279284.   321690.   348491.   290542.   231083.   190338.   150455.    94500.    33677.    76295.   150962.
               222380.   279283.   321690.   348491.   290542.   231083.   190338.   150455.    94500.    33677.    76295.   150962.
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*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  1
 WHAT PREC. CASE? LTN, 1RSD, OR 2RSD,...(IF LTN=1, 1RSD=2, --- 5RSD=5.,)
  2
 AT THE RECOMMENDED CASE #;  4, PREC.=  3.8583 INCHES.  CATCHMENT=   246954 SQ.FT.
                  95963.    77616.    59291.    39566.    46202.    44293.    67948.    69038.    48723.    42568.    59559.   100070.
 SUM(YR. 1-3)
                 246925.   324541.   383832.   423398.   469600.   513893.   581841.   650879.   699602.   742170.   801730.   901799.
                 997762.  1075378.  1134669.  1174235.  1220437.  1264730.  1332678.  1401716.  1450439.  1493008.  1552567.  1652636.
                1748599.  1826216.  1885507.  1925072.  1971274.  2015567.  2083515.  2152553.  2201276.  2243845.  2303404.  2403473.
WATER DEMAND (WD)
                   4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                   4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                 598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 242425.   315541.   370332.   405398.   357100.   306893.   280341.   254879.   209102.   157170.   212230.   307799.
                 399262.   472378.   527169.   562235.   513937.   463730.   437178.   411716.   365939.   314008.   369067.   464636.
                 556099.   629216.   684007.   719072.   670774.   620567.   594015.   568553.   522776.   470845.   525904.   621473.
 DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
 E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;   195369
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  2
  CHANGE FOR CATTLE;
 HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
     E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200 15  5 10
 100 15  5 10
  CHANGE FOR WILDLIFE;
 HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
     E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200 15  5 10
   5 15  1 12
                  75918.    61403.    46906.    31301.    36551.    35041.    53755.    54617.    38545.    33677.    47118.    79167.
 SUM(YR. 1-3)
                 226880.   288284.   335190.   366491.   403042.   438083.   491838.   546455.   585000.   618677.   665795.   744962.
                 820880.   882284.   929190.   960491.   997042.  1032083.  1085838.  1140455.  1179000.  1212677.  1259795.  1338962.
                1414880.  1476283.  1523190.  1554491.  1591042.  1626083.  1679838.  1734455.  1773000.  1806677.  1853795.  1932962.
WATER DEMAND (WD)
                   2250.     2250.     2250.     2250.    47250.    47250.    47250.    47250.    47250.    47250.     2250.     2250.
 SUM(YR. 1-3)
                   2250.     4500.     6750.     9000.    56250.   103500.   150750.   198000.   245250.   292500.   294750.   297000.
                 299250.   301500.   303750.   306000.   353250.   400500.   447750.   495000.   542250.   589500.   591750.   594000.
                 596250.   598500.   600750.   603000.   650250.   697500.   744750.   792000.   839250.   886500.   888750.   891000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 224630.   283784.   328440.   357491.   346792.   334583.   341088.   348455.   339750.   326177.   371045.   447962.
                 521630.   580784.   625440.   654491.   643792.   631583.   638088.   645455.   636750.   623177.   668045.   744962.
                 818630.   877783.   922440.   951491.   940792.   928583.   935088.   942455.   933750.   920177.   965045.  1041962.
 DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
 E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;   123477
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*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  3
 CHANGE CATCHMENT SIZE;
 HOW MANY SQ.FT.? E.G., 55000 ENTER    55000
   110000
                  33816.    27351.    20893.    13942.    16281.    15608.    23944.    24328.    17169.    15000.    20988.    35263.
 SUM(YR. 1-3)
                 184778.   212129.   233022.   246964.   263245.   278853.   302797.   327125.   344294.   359295.   380283.   415546.
                 449362.   476712.   497606.   511548.   527829.   543437.   567381.   591709.   608878.   623879.   644866.   680129.
                 713945.   741296.   762189.   776132.   792413.   808021.   831965.   856293.   873462.   888462.   909450.   944713.
WATER DEMAND (WD)
                   4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                   4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                 598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 180278.   203129.   219522.   228964.   150745.    71853.     1297.   -68875.  -146206.  -225705.  -209217.  -178454.
                -149138.  -126288.  -109894.  -100452.  -178671.  -257563.  -328119.  -398291.  -475622.  -555121.  -538634.  -507871.
                -478555.  -455704.  -439311.  -429868.  -508087.  -586979.  -657535.  -727707.  -805038.  -884538.  -868050.  -837287.
 DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
 E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;    264583
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALS8 SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  4
 CHANGE TANK VOLUME;
 HOW MANY GALLONS? E.G., 88000 ENTER    88000
   230000
                  75918.    61403.    46906.    31301.    36551.    35041.    53755.    54617.    38545.    33677.    47118.    79167.
 SUM(YR. 1-3)
                 226880.   288284.   335190.   366491.   403042.   438083.   491838.   546455.   585000.   618677.   665795.   744962.
                 820880.   882284.   929190.   960491.   997042.  1032083.  1085838.  1140455.  1179000.  1212677.  1259795.  1338962.
                1414880.  1476283.  1523190.  1554491.  1591042.  1626083.  1679838.  1734455.  1773000.  1806677.  1853795.  1932962.
WATER DEMAND (WD)
                   4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                   4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                 598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 222380.   279284.   321690.   348491.   290542.   231083.   190338.   150455.    94500.    33677.    76295.   150962.
                 222380.   279284.   321690.   348491.   290542.   231083.   190338.   150455.    94500.    33677.    76295.   150962.
                 222380.   279283.   321690.   348491.   290542.   231083.   190338.   150455.    94500.    33677.    76295.   150962.
 WATER WILL SPILL OUT IN; MONTH #= 2 WATER BAL.(GAL.)=  279284. WATER WASTE=     49283
 WATER WILL SPILL OUT IN; MONTH #= 3 WATER BAL.(GAL.)=  321690. WATER WASTE=     42406
 WATER WILL SPILL OUT IN; MONTH #= 4 WATER BAL.(GAL.)=  348491. WATER WASTE=     26801
 TOTAL WASTE(GAL./YEAR)=    118490
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          TABLE D-4-1; COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
                       FOR DUCKWATER WATERSHED, ELY DISTRICT, NEVADA.
                                 RAIN CAN #;  4
                                 LOCATION; LAT.= 39° 7' N.
                                           LON.=115°42' W.
                                 ELEVATION;  6265 FT.
                                 WATER REQUIREMENT;
                                     CATTLE:  200 HEAD AT 15 GPD. MAY-OCT INCLUSIVE.    540000.0 GALLONS/YEAR
                                     HORSES:   10 HEAD AT 15 GPD. JAN-DEC INCLUSIVE.     54000.0 GALLONS/YEAR
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                     JAN     FEB     MAR     APR     MAY     JUN     JUL     AUG     SEP     OCT     NOV     DEC  ANNUAL
RAIN(INCHES)  0.6997  0.7265  0.8958  1.0336  0.9121  0.5928  1.0137  1.2276  0.7942  0.8043  0.7179  0.6808 10.0991
 ANNUAL STANDARD DEVIATION
              0.1953  0.2028  0.2500  0.2885  0.2545  0.1654  0.2829  0.3426  0.2217  0.2245  0.2003  0.1900  2.8184
 DAYS>=.01"
              4.7945  4.9609  5.8594  5.7545  6.5403  3.7342  5.9097  7.2849  4.8819  4.7703  4.1677  3.5766 62.2349
 DAYS>=.10"
              2.4950  2.9404  2.9987  3.0819  3.3710  1.8840  3.0030  4.1012  2.8008  2.5670  1.9983  2.0881 33.3295
 AMOUNT <.1"
              0.1150  0.1010  0.1430  0.1336  0.1585  0.0925  0.1453  0.1592  0.1041  0.1102  0.1085  0.0744  1.4453
 RAINS >=.1"
              0.5847  0.6255  0.7528  0.9000  0.7536  0.5003  0.8683  1.0684  0.6902  0.6942  0.6094  0.6063  8.6538
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THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD),RASD(IN %);23.5564
  ANNUAL PRECIPITATION IS REDUCED BY; 0.6639 INCHES.
  EXCEEDENCE PROBABILITY IS 59.2759 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN   9.4352 INCHES EACH YEAR, 59.2759% OF THE TIME.
 3)TWO RSD(LTN-2RASD),2RASD(IN %);47.1128
  ANNUAL PRECIPITATION IS REDUCED BY; 1.3278 INCHES.
  EXCEEDENCE PROBABILITY IS 68.1983 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN   8.7713 INCHES EACH YEAR, 68.1983% OF THE TIME.
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                     JAN       FEB       MAR       APR       MAY       JUN       JUL       AUG       SEP       OCT       NOV       DEC
  *C=0.9
                0.5263    0.5630    0.6775    0.8100    0.6783    0.4502    0.7815    0.9616    0.6212    0.6247    0.5485    0.5457
            CATCHMENT AREA =  122340 SQUARE FEET.   EFFECTIVE ANNUAL PRECIPITATION = 7.7884 INCHES
 WATER YIELD (WY)
+++++FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
                40137.    42935.    51672.    61777.    51728.    34339.    59604.    73336.    47375.    47648.    41829.    41620.
      SUM
                40137.    83072.   134744.   196521.   248250.   282589.   342193.   415529.   462904.   510551.   552380.   594000.
WATER DEMAND (WD)
                49500.    99000.   148500.   198000.   247500.   297000.   346500.   396000.   445500.   495000.   544500.   594000.
WATER BALANCE (WB)
                -9363.    -6565.     2172.    12277.     2228.   -15161.    10104.    23836.    -2125.    -1852.    -7671.    -7880.
ANNUAL WATER DEFICIENCY=    50615
FOR CATCHMENT AREA=   122340
 WATER YIELD (WY)
                40137.    42935.    51672.    61777.    51728.    34339.    59604.    73336.    47375.    47648.    41829.    41620.
 SUM(YR. 1-3)
               134637.   177572.   229244.   291021.   342750.   377089.   436693.   510029.   557404.   605051.   646880.   688500.
               728637.   771572.   823244.   885021.   936750.   971089.  1030693.  1104029.  1151404.  1199051.  1240880.  1282500.
              1322637.  1365572.  1417244.  1479021.  1530750.  1565089.  1624693.  1698029.  1745403.  1793051.  1834880.  1876500.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               130137.   168572.   215744.   273021.   230250.   170089.   135193.   114029.    66904.    20051.    57380.    94500.
               130137.   168572.   215744.   273021.   230250.   170089.   135193.   114029.    66904.    20051.    57380.    94500.
               130137.   168572.   215744.   273021.   230250.   170089.   135193.   114029.    66903.    20051.    57380.    94500.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   122340,  TANK SIZE;   300618
 WATER YIELD (WY)
                40137.    42935.    51672.    61777.    51728.    34339.    59604.    73336.    47375.    47648.    41829.    41620.
 SUM(YR. 1-3)
               162234.   205169.   256841.   318618.   370347.   404686.   464290.   537626.   585001.   632648.   674477.   716097.
               756234.   799169.   850841.   912618.   964347.   998686.  1058290.  1131626.  1179001.  1226648.  1268477.  1310097.
              1350234.  1393169.  1444841.  1506618.  1558347.  1592686.  1652290.  1725626.  1773001.  1820648.  1862477.  1904097.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               157734.   196169.   243341.   300618.   257847.   197686.   162790.   141626.    94501.    47648.    84977.   122097.
               157734.   196169.   243341.   300618.   257847.   197686.   162790.   141626.    94501.    47648.    84977.   122097.
               157734.   196169.   243341.   300618.   257847.   197686.   162790.   141626.    94501.    47648.    84977.   122097.
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2)ONE RSD(LTN-RASD),RASD(IN %);23.5564
                        JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
  *C=0.9
                     0.4917     0.5259     0.6330     0.7568     0.6337     0.4206     0.7301     0.8984     0.5803     0.5837     0.5124     0.5098
+++ EFFECTIVE ANNUAL PRECIPITATION=  7.2764 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   122340,  TANK SIZE;   300618
 WATER YIELD (WY)
                     37498.     40113.     48276.     57716.     48328.     32082.     55686.     68515.     44261.     44515.     39080.     38884.
 SUM(YR. 1-3)
                    131998.    172111.    220386.    278102.    326430.    358512.    414197.    482712.    526973.    571488.    610567.    649451.
                    686949.    727062.    775337.    833053.    881381.    913463.    969148.   1037663.   1081924.   1126439.   1165518.   1204402.
                   1241900.   1282013.   1330288.   1388004.   1436332.   1468414.   1524099.   1592614.   1636875.   1681390.   1720469.   1759353.
WATER DEMAND (WD)
                      4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                      4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                    598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                   1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                    127498.    163111.    206886.    260102.    213930.    151512.    112697.     86712.     36473.    -13512.     21067.     55451.
                     88449.    124062.    167837.    221053.    174881.    112463.     73648.     47663.     -2576.    -52561.    -17982.     16402.
                     49400.     85013.    128788.    182004.    135832.     73414.     34599.      8614.    -41625.    -91610.    -57031.    -22647.
  ***SKIP ONE ITERATION ***
     IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=   130948
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   130948,  CHANGE TANK SIZE TO;   300618 .
 WATER YIELD (WY)
                     40137.     42935.     51672.     61777.     51728.     34339.     59604.     73336.     47375.     47648.     41829.     41620.
 SUM(YR. 1-3)
                    162234.    205169.    256841.    318618.    370347.    404686.    464290.    537626.    585001.    632648.    674477.    716097.
                    756234.    799169.    850841.    912618.    964347.    998686.   1058290.   1131626.   1179001.   1226648.   1268477.   1310097.
                   1350234.   1393169.   1444841.   1506618.   1558347.   1592686.   1652290.   1725626.   1773001.   1820648.   1862477.   1904097.
WATER DEMAND (WD)
                      4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                      4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                    598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                   1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                    157734.    196169.    243341.    300618.    257847.    197686.    162790.    141626.     94501.     47648.     84977.    122097.
                    157734.    196169.    243341.    300618.    257847.    197686.    162790.    141626.     94501.     47648.     84977.    122097.
                    157734.    196169.    243341.    300618.    257847.    197686.    162790.    141626.     94501.     47648.     84977.    122097.
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 3)TWO RSD(LTN-2RASD),2RASD(IN %);47.1128
                     JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
   %C=0.9
                  0.4593     0.4914     0.5914     0.7070     0.5920     0.3930     0.6821     0.8393     0.5422     0.5453     0.4787     0.4763
+++ EFFECTIVE ANNUAL PRECIPITATION=  6.7981 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   130948,  TANK SIZE;    300618
 WATER YIELD (WY)
                  37498.     40113.     48276.     57716.     48328.     32082.     55686.     68515.     44261.     44515.     39080.     38884.
 SUM(YR. 1-3)
                 131998.    172111.    220386.    278102.    326430.    358512.    414197.    482712.    526973.    571488.    610567.    649451.
                 686949.    727062.    775337.    833053.    881381.    913463.    969148.   1037663.   1081924.   1126439.   1165518.   1204402.
                1241900.   1282013.   1330288.   1388004.   1436332.   1468414.   1524099.   1592614.   1636875.   1681390.   1720469.   1759353.
WATER DEMAND (WD)
                   4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                   4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                 598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 127498.    163111.    206886.    260102.    213930.    151512.    112697.     86712.     36473.    -13512.     21067.     55451.
                  88449.    124062.    167837.    221053.    174881.    112463.     73648.     47663.     -2576.    -52561.    -17982.     16402.
                  49400.     85013.    128788.    182004.    135832.     73414.     34599.      8614.    -41625.    -91610.    -57031.    -22647.
  ***SKIP ONE ITERATION ***
     IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=   140162
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   140162,  CHANGE TANK SIZE TO;   300618
 WATER YIELD (WY)
                  40137.     42935.     51672.     61777.     51728.     34339.     59604.     73336.     47375.     47648.     41829.     41620.
 SUM(YR. 1-3)
                 162234.    205169.    256841.    318618.    370347.    404686.    464290.    537626.    585001.    632648.    674477.    716097.
                 756234.    799169.    850841.    912618.    964347.    998686.   1058290.   1131626.   1179001.   1226648.   1268477.   1310097.
                1350234.   1393169.   1444841.   1506618.   1558347.   1592686.   1652290.   1725626.   1773001.   1820648.   1862477.   1904097.
WATER DEMAND (WD)
                   4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                   4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                 598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                 157734.    196169.    243341.    300618.    257847.    197686.    162790.    141626.     94501.     47648.     84977.    122097.
                 157734.    196169.    243341.    300618.    257847.    197686.    162790.    141626.     94501.     47648.     84977.    122097.
                 157734.    196169.    243341.    300618.    257847.    197686.    162790.    141626.     94501.     47648.     84977.    122097.
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 FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                            PARAMETERS
  PRECIPITATION             ANNUAL WD  CATCHMENT       TANK
  CASE NAME  IN./YR.             GAL.     SQ.FT.       GAL.
    1   LTN   7.7884           594000     122339     300618
    2  1RSD   7.2764           594000     130947     300618
    3  2RSD   6.7981           594000     140161     300618
    4  3RSD   6.3512           594000     150023     300618
    5  4RSD   5.9336           594000     160580     300618
 SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.24, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  5
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        TABLE D-4-2; COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
                     FOR STEPTOE WATERSHED, ELY DISTRICT, NEVADA.
                                  RAIN CAN #;  6
                                  LOCATION; LAT.= 38°50' N.
                                            LON.=114°47' W.
                                  ELEVATION;  7400 FT.
                                  WATER REQUIREMENT;
                                     CATTLE:  200 HEAD AT 15 GPD. MAY-OCT INCLUSIVE.    540000.0 GALLONS/YEAR
                                     HORSES:   10 HEAD AT 15 GPD. JAN-DEC INCLUSIVE.     54000.0 GALLONS/YEAR
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                   JAN     FEB     MAR     APR     MAY     JUN     JUL     AUG     SEP     OCT     NOV     DEC  ANNUAL
RAIN(INCHES)  0.7662  0.8398  1.0988  1.3557  1.2223  0.8052  1.3316  1.6150  1.0412  1.0510  0.8871  0.7551 12.7689
 ANNUAL STANDARD DEVIATION
              0.2061  0.2259  0.2955  0.3647  0.3288  0.2166  0.3582  0.4344  0.2800  0.2827  0.2386  0.2031  3.4345
 DAYS>=.01"
              4.8305  5.2656  6.3852  6.4872  7.4146  4.7561  7.2844  9.1639  5.8725  5.7748  4.5764  3.6478 71.4591
 DAYS>=.10"
              2.5641  3.2463  3.4393  3.6962  4.0882  2.3681  3.7959  5.3158  3.4651  3.1710  2.2971  2.1531 39.6003
 AMOUNT <.1"
              0.1133  0.1010  0.1473  0.1396  0.1663  0.1194  0.1744  0.1924  0.1204  0.1302  0.1140  0.0747  1.5929
 RAINS >=.1"
              0.6529  0.7388  0.9515  1.2162  1.0560  0.6858  1.1572  1.4226  0.9208  0.9209  0.7731  0.6803 11.1760
--------------------------------------------------------------------------------------------------------------
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD),RASD(IN %);18.6118
  ANNUAL PRECIPITATION IS REDUCED BY; 0.6392 INCHES.
  EXCEEDENCE PROBABILITY IS 57.2586 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  12.1297 INCHES EACH YEAR, 57.2586% OF THE TIME.
 3)TWO RSD(LTN-2RASD),2RASD(IN %);37.2236
  ANNUAL PRECIPITATION IS REDUCED BY; 1.2784 INCHES.
  EXCEEDENCE PROBABILITY IS 64.9478 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  11.4905 INCHES EACH YEAR, 64.9478% OF THE TIME.
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                   JAN       FEB       MAR       APR       MAY       JUN       JUL       AUG       SEP       OCT       NOV       DEC
   *C=0.9
                0.5876    0.6650    0.8563    1.0946    0.9504    0.6172    1.0415    1.2803    0.8287    0.8288    0.6958    0.6123
            CATCHMENT AREA =   94730 SQUARE FEET.   EFFECTIVE ANNUAL PRECIPITATION =10.0584 INCHES
 WATER YIELD (WY)
+++++FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
                34703.    39269.    50570.    64641.    56124.    36448.    61506.    75609.    48940.    48943.    41089.    36159.
      SUM
                34703.    73972.   124542.   189182.   245306.   281754.   343260.   418868.   467808.   516751.   557841.   594000.
WATER DEMAND (WD)
                49500.    99000.   148500.   198000.   247500.   297000.   346500.   396000.   445500.   495000.   544500.   594000.
WATER BALANCE (WB)
               -14797.   -10231.     1070.    15141.     6624.   -13052.    12006.    26109.     -560.     -557.    -8411.   -13341.
ANNUAL WATER DEFICIENCY=    60946
FOR CATCHMENT AREA=    94730
 WATER YIELD (WY)
                34703.    39269.    50570.    64641.    56124.    36448.    61506.    75609.    48940.    48943.    41089.    36159.
 SUM(YR. 1-3)
               129203.   168472.   219042.   283682.   339806.   376254.   437760.   513368.   562308.   611251.   652341.   688500.
               723203.   762472.   813042.   877682.   933806.   970254.  1031760.  1107368.  1156308.  1205251.  1246341.  1282500.
              1317203.  1356472.  1407042.  1471682.  1527806.  1564254.  1625760.  1701368.  1750308.  1799251.  1840341.  1876500.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               124703.   159472.   205542.   265682.   227306.   169254.   136260.   117368.    71808.    26251.    62841.    94500.
               124703.   159472.   205542.   265682.   227306.   169254.   136260.   117368.    71808.    26251.    62841.    94500.
               124703.   159472.   205542.   265682.   227306.   169254.   136260.   117368.    71808.    26251.    62841.    94500.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    94730,  TANK SIZE;    288374
 WATER YIELD (WY)
                34703.    39269.    50570.    64641.    56124.    36448.    61506.    75609.    48940.    48943.    41089.    36159.
 SUM(YR. 1-3)
               151895.   191164.   241734.   306374.   362498.   398946.   460452.   536060.   585000.   633943.   675033.   711192.
               745895.   785164.   835734.   900374.   956498.   992946.  1054452.  1130060.  1179000.  1227943.  1269033.  1305192.
              1339895.  1379164.  1429734.  1494374.  1550498.  1586946.  1648452.  1724060.  1773001.  1821943.  1863033.  1899192.
WATER DEMAND (WD)
                 4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR. 1-3)
                 4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
               598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
              1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
               147395.   182164.   228234.   288374.   249998.   191946.   158952.   140060.    94500.    48943.    85533.   117192.
               147395.   182164.   228234.   288374.   249998.   191946.   158952.   140060.    94500.    48943.    85533.   117192.
               147395.   182164.   228234.   288374.   249998.   191946.   158952.   140060.    94501.    48943.    85533.   117192.
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 2)ONE RSD(L(N-RASD),RASD(IN %);18.6118
                 JAN      FEB      MAR      APR      MAY      JUN      JUL      AUG      SEP      OCT      NOV      DEC
   *L=0.7
              0.5582   0.6317   0.8134   1.0398   0.9028   0.5863   0.9894   1.2162   0.7872   0.7873   0.6609   0.5816
+++ EFFECTIVE ANNUAL PRECIPITATION=  9.5548 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    94730,  TANK SIZE;   288374
 WATER YIELD (WY)
              32966.   37303.   48038.   61405.   53315.   34623.   58427.   71824.   46490.   46493.   39032.   34349.
 SUM(YR. 1-3)
             127466.  164769.  212807.  274212.  327526.  362149.  420576.  492399.  538890.  585382.  624415.  658764.
             691730.  729033.  777071.  838475.  891790.  926413.  984840. 1056663. 1103153. 1149646. 1188679. 1223028.
            1255993. 1293297. 1341335. 1402739. 1456054. 1490677. 1549103. 1620927. 1667417. 1713910. 1752943. 1787292.
WATER DEMAND (WD)
               4500.    4500.    4500.    4500.   94500.   94500.   94500.   94500.   94500.   94500.    4500.    4500.
 SUM(YR. 1-3)
               4500.    9000.   13500.   18000.  112500.  207000.  301500.  396000.  490500.  585000.  589500.  594000.
             598500.  603000.  607500.  612000.  706500.  801000.  895560.  990000. 1084500. 1179000. 1183500. 1188000.
            1192500. 1197000. 1201500. 1206000. 1300500. 1395000. 1489500. 1584000. 1678500. 1773000. 1777500. 1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
             122966.  155769.  199307.  256212.  215026.  155149.  119076.   96399.   48390.     382.   34915.   64764.
              93230.  126033.  169571.  226475.  185290.  125413.   89340.   66663.   18653.  -29354.    5179.   35028.
              63493.   96297.  139835.  196739.  155554.   95677.   59603.   36927.  -11083.  -59090.  -24557.    5292.
  ***SKIP ONE ITERATION ***
       IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=     99722
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    99722,  CHANGE TANK SIZE TO;   288374
 WATER YIELD (WY)
              34703.   39269.   50570.   64641.   56124.   36448.   61506.   75609.   48940.   48943.   41089.   36159.
 SUM(YR. 1-3)
             151895.  191164.  241734.  306374.  362498.  398946.  460452.  536060.  585000.  633943.  675033.  711192.
             745895.  785164.  835734.  900374.  956498.  992946. 1054452. 1130060. 1179000. 1227943. 1269033. 1305192.
            1339895. 1379164. 1429734. 1494374. 1550498. 1586946. 1648452. 1724060. 1773001. 1821943. 1863033. 1899192.
WATER DEMAND (WD)
               4500.    4500.    4500.    4500.   94500.   94500.   94500.   94500.   94500.   94500.    4500.    4500.
 SUM(YR. 1-3)
               4500.    9000.   13500.   18000.  112500.  207000.  301500.  396000.  490500.  585000.  589500.  594000.
             598500.  603000.  607500.  612000.  706500.  801000.  895500.  990000. 1084500. 1179000. 1183500. 1188000.
            1192500. 1197000. 1201500. 1206000. 1300500. 1395000. 1489500. 1584000. 1678500. 1773000. 1777500. 1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
             147395.  182164.  228234.  288374.  249998.  191946.  158952.  140060.   94500.   48943.   85533.  117192.
             147395.  182164.  228234.  288374.  249998.  191946.  158952.  140060.   94500.   48943.   85533.  117192.
             147395.  182164.  228234.  288374.  249998.  191946.  158952.  140060.   94501.   48943.   85533.  117192.
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 3)TWO RSD(LTN-2RASD),2RASD(IN %);37.2236
                      JAN       FEB       MAR       APR       MAY       JUN       JUL       AUG       SEP       OCT       NOV       DEC
   *C=0.9
                   0.5303    0.6000    0.7727    0.9877    0.8576    0.5569    0.9398    1.1553    0.7478    0.7479    0.6279    0.5525
+++ EFFECTIVE ANNUAL PRECIPITATION=  9.0765 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    99722,  TANK SIZE;    288374
 WATER YIELD (WY)
                   32966.    37303.    48038.    61405.    53315.    34623.    58427.    71824.    46490.    46493.    39032.    34349.
 SUM(YR, 1-3)
                  127466.   164769.   212807.   274212.   327526.   362149.   420576.   492399.   538890.   585382.   624415.   658764.
                  691730.   729033.   777071.   838475.   891790.   926413.   984840.  1056663.  1103153.  1149646.  1188679.  1223028.
                 1255993.  1293297.  1341335.  1402739.  1456054.  1490677.  1549103.  1620927.  1667417.  1713910.  1752943.  1787292.
WATER DEMAND (WD)
                    4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR, 1-3)
                    4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                  598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                 1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR, 1-3)
                  122966.   155769.   199307.   256212.   215026.   155149.   119076.    96399.    48390.      382.    34915.    64764.
                   93230.   126033.   169571.   226475.   185290.   125413.    89340.    66663.    18653.   -29354.     5179.    35028.
                   63493.    96297.   139835.   196739.   155554.    95677.    59603.    36927.   -11083.   -59090.   -24557.     5292.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY, FOR AWD, THE CATCHMENT AREA (SQ. FT.)=   104977
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   104977,  CHANGE TANK SIZE TO;    288374
 WATER YIELD (WY)
                   34703.    39269.    50570.    64641.    56124.    36448.    61506.    75609.    48940.    48943.    41089.    36159.
 SUM(YR, 1-3)
                  151895.   191164.   241734.   306374.   362498.   398946.   460452.   536060.   585000.   633943.   675033.   711192.
                  745895.   785164.   835734.   900374.   956498.   992946.  1054452.  1130060.  1179000.  1227943.  1269033.  1305192.
                 1339895.  1379164.  1429734.  1494374.  1550498.  1586946.  1648452.  1724060.  1773001.  1821943.  1863033.  1899192.
WATER DEMAND (WD)
                    4500.     4500.     4500.     4500.    94500.    94500.    94500.    94500.    94500.    94500.     4500.     4500.
 SUM(YR, 1-3)
                    4500.     9000.    13500.    18000.   112500.   207000.   301500.   396000.   490500.   585000.   589500.   594000.
                  598500.   603000.   607500.   612000.   706500.   801000.   895500.   990000.  1084500.  1179000.  1183500.  1188000.
                 1192500.  1197000.  1201500.  1206000.  1300500.  1395000.  1489500.  1584000.  1678500.  1773000.  1777500.  1782000.
WATER BALANCE (WB)
 SUM(YR, 1-3)
                  147395.   182164.   228234.   288374.   249998.   191946.   158952.   140060.    94500.    48943.    85533.   117192.
                  147395.   182164.   228234.   288374.   249998.   191946.   158952.   140060.    94500.    48943.    85533.   117192.
                  147395.   182164.   228234.   288374.   249998.   191946.   158952.   140060.    94501.    48943.    85533.   117192.
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 FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                          PARAMETERS
  PRECIPITATION           ANNUAL WD  CATCHMENT        TANK
  CASE NAME   IN./YR.          GAL.     SQ.FT.        GAL.
    1   LTN  10.0584         593999      94729      288374
    2  1RSD   9.5548         593999      99721      288374
    3  2RSD   9.0765         593999     104976      288374
    4  3RSD   8.6221         593999     110508      288374
    5  4RSD   8.1905         593999     116352      288374
 SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.22, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE THE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
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                    TABLE D-5-1; COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
                                 FOR MATHEWS CANYON WATERSHED, LAS VEGAS DISTRICT, NEVADA.
                                          RAIN CAN #:  9
                                          LOCATION; LAT.= 37°33' N.
                                                    LON.=114° 7' W.
                                          ELEVATION:  5700 FT.
                                          WATER REQUIREMENT;
                                              CATTLE:  200 HEAD AT 15 GPD, MAY-OCT INCLUSIVE,     540000.0 GALLONS/YEAR
                                              HORSES:   10 HEAD AT 15 GPD, JAN-DEC INCLUSIVE,      54000.0 GALLONS/YEAR
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                    JAN      FEB      MAR      APR      MAY      JUN      JUL      AUG      SEP      OCT      NOV      DEC   ANNUAL
RAIN(INCHES)     1.5100   1.5621   1.6542   1.3701   1.0698   0.6149   1.3624   1.5767   0.9660   1.3141   1.1969   1.4255  15.6228
 ANNUAL STANDARD DEVIATION
                 0.4446   0.4599   0.4870   0.4034   0.3150   0.1810   0.4011   0.4642   0.2844   0.3869   0.3524   0.4197   4.5996
 DAYS> .01"
                 5.7640   6.8550   7.2210   6.0052   6.4804   3.6281   6.6445   8.4331   4.5702   6.9545   4.8324   4.4008  71.7892
 DAYS>=.10"
                 3.4269   4.8057   4.4014   3.5114   3.2514   1.6448   3.9305   5.1096   2.8993   3.7889   2.7195   2.8955  42.3847
 AMOUNT <.1"
                 0.1169   0.1025   0.1410   0.1247   0.1615   0.0992   0.1357   0.1662   0.0835   0.1583   0.1056   0.0753   1.4702
 RAINS >=.1"
                 1.3932   1.4596   1.5132   1.2454   0.9084   0.5157   1.2267   1.4106   0.8825   1.1558   1.0912   1.3503  14.1526
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THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN: USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD),RASD(IN %);21.1830
  ANNUAL PRECIPITATION IS REDUCED BY; 0.9743 INCHES.
  EXCEEDENCE PROBABILITY IS 58.2909 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  14.6485 INCHES EACH YEAR, 58.2909% OF THE TIME.
 3)TWO RSD(LTN-2RASD),2RASD(IN %);42.3660
  ANNUAL PRECIPITATION IS REDUCED BY; 1.9486 INCHES.
  EXCEEDENCE PROBABILITY IS 66.7980 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  13.6742 INCHES EACH YEAR, 66.7980% OF THE TIME.
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                          JAN         FEB         MAR         APR         MAY         JUN         JUL         AUG         SEP         OCT         NOV         DEC
  *C-0.9
                        1.2539      1.3137      1.3619      1.1208      0.8176      0.4642      1.1041      1.2695      0.7742      1.0402      0.7671      1.2152
                 CATCHMENT AREA =     74806 SQUARE FEET.    EFFECTIVE ANNUAL PRECIPITATION =12.7374 INCHES
 WATER YIELD (WY)
+++++FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
                        58474.      61263.      63511.      52270.      38126.      21646.      51487.      59203.      37038.      48510.      45800.      56672.
       SUM
                        58474.     119737.     183248.     235517.     273644.     295290.     346777.     405980.     443018.     491528.     537328.     594000.
WATER DEMAND (WD)
                        49500.      99000.     148500.     198000.     247500.     297000.     346500.     396000.     445500.     495000.     544500.     594000.
WATER BALANCE (WB)
                         8974.      11763.      14011.       2770.     -11374.     -27854.       1987.       9703.     -12462.       -990.      -3700.       7172.
ANNUAL WATER DEFICIENCY=     56375
FOR CATCHMENT AREA=     74806
 WATER YIELD (WY)
                        58474.      61263.      63511.      52270.      38126.      21646.      51487.      59203.      37038.      48510.      45800.      56672.
 SUM(YR. 1-3)
                       152974.     214237.     277748.     330017.     368144.     389790.     441277.     500480.     537518.     586028.     631828.     688500.
                       746974.     808237.     871748.     924017.     962144.     983790.    1035277.    1094480.    1131518.    1180028.    1225828.    1282500.
                      1340974.    1402237.    1465748.    1518017.    1556144.    1577790.    1629277.    1688480.    1725518.    1774028.    1819828.    1876500.
WATER DEMAND (WD)
                         4500.       4500.       4500.       4500.      94500.      94500.      94500.      94500.      94500.      94500.       4500.       4500.
 SUM(YR. 1-3)
                         4500.       9000.      13500.      18000.     112500.     207000.     301500.     396000.     490500.     585000.     589500.     594000.
                       598500.     603000.     607500.     612000.     706500.     801000.     895500.     990000.    1084500.    1179000.    1183500.    1188000.
                      1192500.    1197000.    1201500.    1206000.    1300500.    1395000.    1489500.    1584000.    1678500.    1773000.    1777500.    1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                       148474.     205237.     264248.     312017.     255644.     182790.     139777.     104480.      47018.       1028.      42328.      94500.
                       148474.     205237.     264248.     312017.     255644.     182790.     139777.     104480.      47018.       1028.      42328.      94500.
                       148474.     205237.     264248.     312017.     255644.     182790.     139777.     104480.      47018.       1028.      42328.      94500.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;      74806;   TANK SIZE;     359499
 WATER YIELD (WY)
                        58474.      61263.      63511.      52270.      38126.      21646.      51487.      59203.      37038.      18510.      45800.      56672.
 SUM(YR. 1-3)
                       200456.     261719.     325230.     377499.     415626.     437272.     488759.     547962.     585000.     633510.     679310.     735982.
                       794456.     855719.     919230.     971499.    1009626.    1031272.    1082759.    1141962.    1179000.    1227510.    1273310.    1329982.
                      1388456.  - 1449719.    1513230.    1565499.    1603626.    1625272.    1676759.    1735962.    1773000.    1821510.    1867310.    1923982.
WATER DEMAND (WD)
                         4500.       4500.       4500.       4500.      94500.      94500.      94500.      94500.      94500.      94500.       4500.       4500.
 SUM(YR. 1-3)
                         4500.       9000.      13500.      18000.     112500.     207000.     301500.     396000.     490500.     585000.     589500.     594000.
                       598500.     603000.     607500.     612000.     706500.     801000.     895500.     990000.    1084500.    1179000.    1183500.    1188000.
                      1192500.    1197000.    1201500.    1206000.    1300500.    1395000.    1489500.    1584000.    1678500.    1773000.    1777500.    1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                       195956.     252719.     311730.     359499.     303126.     230272.     187259.     151962.      94500.      48510.      89810.     141982.
                       195956.     252719.     311730.     359499.     303126.     230272.     187259.     151962.      94500.      48510.      89810.     141982.
                       195956.     252719.     311730.     359499.     303126.     230272.     187259.     151962.      94500.      48510.      89810.     141982.
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 2)ONE RSD(LTN-RASD);RASD(IN %);21.1830
                 JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
  *C=0.9
              1.1757     1.2318     1.2770     1.0509     0.7666     0.4352     1.0352     1.1903     0.7447     0.9753     0.9209     1.1394
+++ EFFECTIVE ANNUAL PRECIPITATION= 11.9430 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    74806,  TANK SIZE;    359499
 WATER YIELD (WY)
              54827.     57442.     59550.     49010.     35749.     20296.     48276.     55511.     34728.     45485.     42944.     53138.
 SUM(YR. 1-3)
             149327.    206769.    266319.    315329.    351078.    371374.    419650.    475161.    509889.    555374.    598318.    651455.
             706282.    763724.    823275.    872284.    908033.    928329.    976605.   1032116.   1066844.   1112329.   1155273.   1208410.
            1263237.   1320679.   1380230.   1429239.   1464988.   1485284.   1533560.   1589071.   1623799.   1669284.   1712228.   1765365.
WATER DEMAND (WD)
               4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
               4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
             598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
            1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
             144827.    197769.    252819.    297329.    238578.    164374.    118150.     79161.     19389.    -29626.      8818.     57455.
             107782.    160724.    215775.    260284.    201533.    127329.     81105.     42116.    -17656.    -66671.    -28227.     20410.
              70737.    123679.    178730.    223239.    164488.     90284.     44060.      5071.    -54701.   -103716.    -65272.    -16635.
   ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=     79781
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    79781,  CHANGE TANK SIZE TO;    359499
 WATER YIELD (WY)
              58474.     61263.     63511.     52270.     38126.     21646.     51487.     59203.     37038.     48510.     45800.     56672.
 SUM(YR. 1-3)
             200456.    261719.    325230.    377499.    415626.    437272.    488759.    547962.    585000.    633510.    679310.    735982.
             794456.    855719.    919230.    971499.   1009626.   1031272.   1082759.   1141962.   1179000.   1227510.   1273310.   1329982.
            1388456.   1449719.   1513230.   1565499.   1603626.   1625272.   1676759.   1735962.   1773000.   1821510.   1867310.   1923982.
WATER DEMAND (WD)
               4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
               4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
             598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
            1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000
WATER BALANCE (WB)
 SUM(YR. 1-3)
             195956.    252719.    311730.    359499.    303126.    230272.    187259.    151962.     94500.     48510.     89810.    141982.
             195956.    252719.    311730.    359499.    303126.    230272.    187259.    151962.     94500.     48510.     89810.    141982.
             195956.    252719.    311730.    359499.    303126.    230272.    187259.    151962.     94500.     48510.     89810.    141982.
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 3)TWO RSD(LTN-2RASD),2RASD(IN %);42.3660
                            JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
   *C=0.9
                         1.1024     1.1549     1.1973     0.9854     0.7188     0.4081     0.9706     1.1161     0.6982     0.9145     0.8634     1.0684
+++ EFFECTIVE ANNUAL PRECIPITATION= 11.1982 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    79781,  TANK SIZE;   359499
 WATER YIELD (WY)
                         54827.     57442.     59550.     49610.     35749.     20296.     48276.     55511.     34728.     45485.     42944.     53138.
 SUM(YR. 1-3)
                        149327.    206769.    266319.    315329.    351078.    371374.    419650.    475161.    509889.    555374.    598318.    651455.
                        706282.    763724.    823275.    872284.    908033.    928329.    976605.   1032116.   1066844.   1112329.   1155273.   1208410.
                       1263237.   1320679.   1380230.   1429239.   1464988.   1485284.   1533560.   1589071.   1623799.   1669284.   1712228.   1765365.
WATER DEMAND (WD)
                          4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                          4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                        598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                       1192500.   1197000.  .1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                        144827.    197769.    252819.    297329.    238578.    164374.    118150.     79161.     19389.    -29626.      8818.     57455.
                        107782.    160724.    215775.    260284.    201533.    127329.     81105.     42116.    -17656.    -66671.    -28227.     20410.
                         70737.    123679.    178730.    223239.    164488.     90284.     44060.      5071.    -54701.   -103716.    -65272.    -16635.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=    85087
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    85087,  CHANGE TANK SIZE TO;   359499
 WATER YIELD (WY)
                         58474.     61263.     63511.     52270.     38126.     21646.     51487.     59203.     37038.     48510.     45800.     56672.
 SUM(YR. 1-3)
                        200456.    261719.    325230.    377499.    415626.    437272.    488759.    547962.    585000.    633510.    679310.    735982.
                        794456.    855719.    919230.    971499.   1009626.   1031272.   1082759.   1141962.   1179000.   1227510.   1273310.   1329982.
                       1388456.   1449719.   1513230.   1565499.   1603626.   1625272.   1676759.   1735962.   1773000.   1821510.   1867310.   1923982.
WATER DEMAND (WD)
                          4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                          4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                        598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                       1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                        195956.    252719.    311730.    359499.    303126.    230272.    187259.    151962.     94500.     48510.     89810.    141982.
                        195956.    252719.    311730.    359499.    303126.    230272.    187259.    151962.     94500.     48510.     89810.    141982.
                        195956.    252719.    311730.    359499.    303126.    230272.    187259.    151962.     94500.     48510.     89810.    141982.
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 FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                        PARAMETERS
  PRECIPITATION         ANNUAL WD  CATCHMENT        TANK
  CASE NAME   IN./YR.        GAL.     SQ.FT.        GAL.
     1   LTN  12.7374      594000      74804      359499
     2  1RSD  11.9430      594000      79779      359499
     3  2RSD  11.1982      594000      85085      359499
     4  3RSD  10.4998      594000      90745      359499
     5  4RSD   9.8450      594000      96780      359499
 SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.23, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
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TABLE D-5-2; COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
             FOR PINE CANYON WATERSHED; LAS VEGAS DISTRICT, NEVADA.
                          RAIN CAN #;  4
                          LOCATION; LAT.= 37"30' N.
                                    LON.=114"12  W.
                          ELEVATION;  6080 FT.
                          WATER REQUIREMENT;
                             CATTLE:  200 HEAD AT 15 GPD. MAY-OCT INCLUSIVE.     540000.0 GALLONS/YEAR
                             HORSES:   10 HEAD AT 15 GPD. JAN-DEC INCLUSIVE.      54000.0 GALLONS/YEAR
----------------------------------------------------------------------------------------------------------
                    JAN     FEB     MAR     APR     MAY     JUN     JUL     AUG     SEP     OCT     NOV     DEC  ANNUAL
RAIN(INCHES)     1.6959  1.7802  1.9059  1.6041  1.2638  0.7312  1.4589  1.6839  1.0379  1.5439  1.3765  1.6033 17.6855
 ANNUAL STANDARD DEVIATION
                 0.4835  0.5075  0.5433  0.4573  0.3603  0.2084  0.4159  0.4800  0.2959  0.4401  0.3924  0.4571  5.0418
 DAYS>=.01"
                 6.1510  7.3955  7.8291  6.4702  7.0029  4.1973  7.0272  8.9475  4.7957  7.6742  5.2383  4.6589 77.3870
 DAYS>=.10"
                 3.7198  5.2276  4.8996  3.8497  3.6924  1.9128  4.1832  5.4339  3.0917  4.3617  3.0550  3.1022 46.5298
 AMOUNT <.1"
                 0.1216  0.1084  0.1465  0.1310  0.1655  0.1142  0.1422  0.1757  0.0852  0.1656  0.1092  0.0778  1.5429
 RAINS >=.1"
                 1.5744  1.6718  1.7594  1.4731  1.0983  0.6169  1.3167  1.5082  0.9527  1.3782  1.2674  1.5254 16.1426
----------------------------------------------------------------------------------------------------------
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD),RASD(IN %);18.3048
  ANNUAL PRECIPITATION IS REDUCED BY; 0.9229 INCHES.
  EXCEEDENCE PROBABILITY IS 57.1389 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  16.7626 INCHES EACH YEAR, 57.1389% OF THE TIME.
 3)TWO RSD(LTN-2RASD),2RASD(IN %);36.6097
  ANNUAL PRECIPITATION IS REDUCED BY; 1.8458 INCHES.
  EXCEEDENCE PROBABILITY IS 64.6930 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  15.8397 INCHES EACH YEAR, 64.6930% OF THE TIME.
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                        JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
 *C-0.9
                      1.4169     1.5046     1.5834     1.3258     0.9884     0.5552     1.1851     1.3574     0.6574     1.2404     1.1406     1.3729
         CATCHMENT AREA =    65585 SQUARE FEET.    EFFECTIVE ANNUAL PRECIPITATION =14.5283 INCHES
 WATER YIELD (WY)
+++++FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
                      57933.     61517.     64740.     54207.     40413.     22701.     48452.     55497.     35057.     50715.     46635.     56132.
     SUM
                      57933.    119450.    184190.    238397.    278810.    301511.    349964.    405461.    440518.    491233.    537868.    594000.
WATER DEMAND (WD)
                      49500.     99000.    148500.    198000.    247500.    297000.    346500.    396000.    445500.    495000.    544500.    594000
WATER BALANCE (WB)
                       8433.     12017.     15240.      4707.     -9087.    -26799.     -1048.      5997.    -14443.      1215.     -2865.      6632.
ANNUAL WATER DEFICIENCY=    54238
FOR CATCHMENT AREA=     65585
 WATER YIELD (WY)
                      57933.     61517.     64740.     54207.     40413.     22701.     48452.     55497.     35057.     50715.     46635.     56132.
 SUM(YR. 1-3)
                     152433.    213950.    278690.    332897.    373310.    396011.    444464.    499961.    535018.    585733.    632368.    688500.
                     746433.    807950.    872690.    926897.    967310.    990011.   1038464.   1093961.   1129018.   1179733.   1226368.   1282500.
                    1340433.   1401950.   1466690.   1520897.   1561310.   1584011.   1632464.   1687961.   1723018.   1773733.   1820368.   1876500.
WATER DEMAND (WD)
                       4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                       4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                     598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                    1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                     147933.    204950.    265190.    314897.    260810.    189011.    142964.    103961.     44518.       733.     42868.     94500.
                     147933.    204950.    265190.    314897.    260810.    189011.    142964.    103961.     44518.       733.     42868.     94500.
                     147933.    204950.    265190.    314897.    260810.    189011.    142964.    103961.     44518.       733.     42868.     94500.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;     65585;   TANK SIZE;     364878
 WATER YIELD (WY)
                      57933.     61517.     64740.     54207.     40413.     22701.     48452.     55497.     35057.     50715.     46635.     56132.
 SUM(YR. 1-3)
                     202415.    263932.    328672.    382879.    423292.    445993.    494446.    549943.    585000.    635715.    682350.    738482.
                     796415.    857932.    922672.    976879.   1017292.   1039993.   1088446.   1143943.   1179000.   1229715.   1276350.   1332482.
                    1390415.   1451932.   1516672.   1570879.   1611292.   1633993.   1682446.   1737943.   1773000.   1823715.   1870350.   1926482.
WATER DEMAND (WD)
                       4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                       4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                     598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                    1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                     197915.    254932.    315172.    364879.    310792.    238993.    192946.    153943.     94500.     50715.     92850.    144482.
                     197915.    254932.    315172.    364879.    310792.    238993.    192946.    153943.     94500.     50715.     92850.    144482.
                     197915.    254932.    315172.    364879.    310792.    238993.    192946.    153943.     94500.     50715.     92850.    144482.
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 2)ONE RSD(LTN-RASD),RASD(IN %);18.3048
                          JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
   *C=0.9
                       1.3430     1.4261     1.5008     1.2566     0.9369     0.5263     1.1232     1.2865     0.8127     1.1757     1.0811     1.3012
+++ EFFECTIVE ANNUAL PRECIPITATION= 13.7702 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    65585,  TANK SIZE;    364878
 WATER YIELD (WY)
                       54909.     58307.     61362.     51378.     38304.     21517.     45924.     52601.     33228.     48069.     44202.     53202.
 SUM(YR. 1-3)
                      149409.    207716.    269078.    320456.    358761.    380277.    426201.    478803.    512030.    560099.    604301.    657503.
                      712413.    770720.    832081.    883460.    921764.    943280.    989204.   1041806.   1075034.   1123102.   1167304.   1220506.
                     1275416.   1333723.   1395085.   1446463.   1484767.   1506283.   1552207.   1604809.   1638037.   1686105.   1730307.   1783509.
WATER DEMAND (WD)
                        4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                        4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                      598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                     1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                      144909.    198716.    255578.    302456.    246261.    173277.    124701.     82803.     21530.    -24901.     14801.     63503.
                      113913.    167720.    224581.    271460.    215264.    142280.     93704.     51806.     -9466.    -55898.    -16196.     32506.
                       82916.    136723.    193585.    240463.    184267.    111283.     62707.     20809.    -40463.    -86895.    -47193.      1509.
  ***SKIP ONE ITERATION ***
     IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=     69195
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    69195,  CHANGE TANK SIZE TO;    364878
 WATER YIELD (WY)
                       57933.     61517.     64740.     54207.     40413.     22701.     48452.     55497.     35057.     50715.     46635.     56132.
 SUM(YR. 1-3)
                      202415.    263932.    328672.    382879.    423292.    445993.    494446.    549943.    585000.    635715.    682350.    738482.
                      796415.    857932.    922672.    976879.   1017292.   1039993.   1088446.   1143943.   1179000.   1229715.   1276350.   1332482.
                     1390415.   1451932.   1516672.   1570879.   1611292.   1633993.   1682446.   1737943.   1773000.   1823715.   1870350.   1926482.
WATER DEMAND (WD)
                        4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                        4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                      598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                     1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                      197915.    254932.    315172.    364879.    310792.    238993.    192946.    153943.     94500.     50715.     92850.    144482.
                      197915.    254932.    315172.    364879.    310792.    238993.    192946.    153943.     94500.     50715.     92850.    144482.
                      197915.    254932.    315172.    364879.    310792.    238993.    192946.    153943.     94500.     50715.     92850.    144482.
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 3)TWO RSD(LTN-2RASD),2RASD(IN %);36.6097
                   JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
   *C=0.9
                 1.2729     1.3517     1.4225     1.1911     0.8880     0.4988     1.0646     1.2194     0.7703     1.1143     1.0247     1.2333
+++ EFFECTIVE ANNUAL PRECIPITATION= 13.0516 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    69195,  TANK SIZE;    364878
 WATER YIELD (WY)
                 54909.     58307.     61362.     51378.     38304.     21517.     45924.     52601.     33228.     48069.     44202.     53202.
 SUM(YR. 1-3)
                149409.    207716.    269078.    320456.    358761.    380277.    426201.    478803.    512030.    560099.    604301.    657503.
                712413.    770720.    832081.    883460.    921764.    943280.    989204.   1041806.   1075034.   1123102.   1167304.   1220506.
               1275416.   1333723.   1395085.   1446463.   1484767.   1506283.   1552207.   1604809.   1638037.   1686105.   1730307.   1783509.
WATER DEMAND (WD)
                  4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500       4500.
 SUM(YR. 1-3)
                  4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000
               1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                144909.    198716.    255578.    302456.    246261.    173277.    124701.     82803.     21530.    -24901.     14801.     63503.
                113913.    167720.    224581.    271460.    215264.    142280.     93704.     51806.     -9466.    -55898.    -16196.     32506.
                 82916.    136723.    193585.    240463.    184267.    111283.     62707.     20809.    -40463.    -86895.    -47193.      1509.
  ***SKIP ONE ITERATION ***
     IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=    73004
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    73004,  CHANGE TANK SIZE TO;    364878
 WATER YIELD (WY)
                 57933.     61517.     64740.     54207.     40413.     22701.     48452.     55497.     35057.     50715.     46635.     56132.
 SUM(YR. 1-3)
                202415.    263932.    328672.    382879.    423292.    445993.    494446.    549943.    585000.    635715.    682350.    738482.
                796415.    857932.    922672.    976879.   1017292.   1039993.   1088446.   1143943.   1179000.   1229715.   1276350.   1332482.
               1390415.   1451932.   1516672.   1570879.   1611292.   1633993.   1682446.   1737943.   1773000.   1823715.   1876350.   1932482.
WATER DEMAND (WD)
                  4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                  4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
               1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                197915.    254932.    315172.    364879.    310792.    238993.    192946.    153943.     94500.     50715.     92850.    144482.
                197915.    254932.    315172.    364879.    310792.    238993.    192946.    153943.     94500.     50715.     92850.    144482.
                197915.    254932.    315172.    364879.    310792.    238993.    192946.    153943.     94500.     50715.     92850.    144482.
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 FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                        PARAMETERS
  PRECIPITATION         ANNUAL WD  CATCHMENT        TANK
  CASE NAME   IN./YR.        GAL.     SQ.FT.        GAL.
    1   LTN  14.5283       594000      65583      364878
    2  1RSD  13.7702       594000      69193      364878
    3  2RSD  13.0516       594000      73003      364878
    4  3RSD  12.3705       594000      77022      364878
    5  4RSD  11.7250       594000      81263      364878
 SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.22, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE THE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
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TABLE D-6-1; COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
             FOR MILL CREEK WATERSHED, BATTLE MOUNTAIN DISTRICT, NEVADA.
                         RAIN CAN #;  4
                         LOCATION; LAT.= 40°28' N.
                                   LON.=116°53' W.
                         ELEVATION;  5780 FT.
                         WATER REQUIREMENT;
                              CATTLE:  200 HEAD AT 15 GPD. MAY-OCT INCLUSIVE.    540000.0 GALLONS/YEAR
                              HORSES:   10 HEAD AT 15 GPD. JAN-DEC INCLUSIVE.     54000.0 GALLONS/YEAR
----------------------------------------------------------------------------------------------------------
                   JAN     FEB     MAR     APR     MAY     JUN     JUL     AUG     SEP     OCT     NOV     DEC  ANNUAL
RAIN(INCHES)    1.1983  1.1851  1.3067  1.4367  1.4680  0.9658  0.7838  0.7673  0.6873  1.1070  1.0761  1.1647 13.1468
 ANNUAL STANDARD DEVIATION
                0.2650  0.2621  0.2890  0.3177  0.3247  0.2136  0.1733  0.1697  0.1520  0.2448  0.2380  0.2576  2.9075
 DAYS>=.01"
                7.3612  7.8090  8.2284  7.1494  9.1322  6.1093  5.1497  5.4054  5.0849  6.2180  5.5671  5.9375 79.1522
 DAYS>=.10"
                3.9874  4.3826  4.3593  4.2891  5.1583  3.3201  2.3875  2.7304  2.7709  3.4945  3.1795  3.7559 43.8156
 AMOUNT <.1"
                0.1687  0.1713  0.1935  0.1430  0.1987  0.1395  0.1381  0.1337  0.1157  0.1362  0.1194  0.1091  1.7668
 RAINS >=.1"
                1.0296  1.0138  1.1132  1.2936  1.2693  0.8264  0.6457  0.6336  0.5716  0.9708  0.9567  1.0556 11.3800
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THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD),RASD(IN %);11.9974
  ANNUAL PRECIPITATION IS REDUCED BY; 0.3488 INCHES.
  EXCEEDENCE PROBABILITY IS 54.6790 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  12.7980 INCHES EACH YEAR, 54.6790% OF THE TIME.
 3)TWO RSD(LTN-2RASD),2RASD(IN %);23.9947
  ANNUAL PRECIPITATION IS REDUCED BY; 0.6976 INCHES.
  EXCEEDENCE PROBABILITY IS 59.4578 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  12.4492 INCHES EACH YEAR, 59.4578% OF THE TIME.
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                     JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
  *C=0.9
                   0.9266     0.9124     1.0019     1.1643     1.1424     0.7437     0.5812     0.5702     0.5145     0.8737     0.8611     0.9501
             CATCHMENT AREA =    93032 SQUARE FEET.    EFFECTIVE ANNUAL PRECIPITATION =10.2420 INCHES
 WATER YIELD (WY)
+++++FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
                   53741.     52917.     58107.     67524.     66255.     43134.     33705.     33071.     29836.     50672.     49938.     55100.
     SUM
                   53741.    106657.    164764.    232288.    298543.    341677.    375382.    408453.    438290.    488961      538900.    594000.
WATER DEMAND (WD)
                   49500.     99000.    148500.    198000.    247500.    297000.    346500.    396000.    445500.    495000.    544500     594000.
WATER BALANCE (WB)
                    4241.      3417.      8607.     18024.     16755.     -6366.    -15795.    -16429.    -19364.      11[illegible].     438.      5600.
ANNUAL WATER DEFICIENCY=    58249
FOR CATCHMENT AREA=    93032
 WATER YIELD (WY)
                   53741.     52917.     58107.     67524.     66255.     43134.     33705.     33071.     29836.     50672.     49938.     55100.
 SUM(YR. 1-3)
                  148241.    201157.    259264.    326788.    393043.    436177.    469882.    502953.    532790.    583461.    633400.    688500.
                  742241.    795157.    853264.    920788.    987043.   1030177.   1063882.   1096953.   1126790.   1177461.   1227400.   1282500.
                 1336241.   1389157.   1447264.   1514788.   1581043.   1624177.   1657882.   1690953.   1720790.   1771461.   1821400.   1876500.
WATER DEMAND (WD)
                    4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                    4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                  598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                 1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                  143741.    192157.    245764.    308788.    280543.    229177.    168382.    106953.     42290.     -1539.     43900.     94500.
                  143741.    192157.    245764.    308788.    280543.    229177.    168382.    106953.     42290.     -1539.     43900.     94500.
                  143741.    192157.    245764.    308788.    280543.    229177.    168382.    106953.     42290.     -1539.     43900.     94500.
FOR SEASONAL CONSUMPTIVE USE;
      CATCHMENT SIZE;     93032,   TANK SIZE;    360999
 WATER YIELD (WY)
                   53741.     52917.     58107.     67524.     66255.     43134.     33705.     33071.     29836.     50672.     49938.     55100.
 SUM(YR. 1-3)
                  200452.    253368.    311475.    378999.    445254.    488388.    522093.    555164.    585001.    635672.    685611.    740711.
                  794452.    847368.    905475.    972999.   1039254.   1082388.   1116093.   1149164.   1179001.   1229672.   1279611.   1334711.
                 1388452.   1441368.   1499475.   1566999.   1633254.   1676388.   1710093.   1743164.   1773001.   1823672.   1873611.   1928711.
WATER DEMAND (WD)
                    4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                    4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                  598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                 1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                  195952.    244368.    297975.    360999.    332754.    281388.    220593.    159164.     94501.     50672.     96111.    146711.
                  195952.    244368.    297975.    360999.    332754.    281388.    220593.    159164.     94501.     50672.     96111.    146711.
                  195952.    244368.    297975.    360999.    332754.    281388.    220593.    159164.     94501.     50672.     96111.    146711.
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 2)ONE RSD(LIN-RASD),RASD(IN %);11.9974
                    JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
  *C=0.9
                 0.9020     0.8882     0.9753     1.1334     1.1121     0.7240     0.5657     0.5551     0.5008     0.8505     0.8382     0.9249
+++ EFFECTIVE ANNUAL PRECIPITATION=  9.9702 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    93032,  TANK SIZE;   360999
 WATER YIELD (WY)
                 52315.     51513.     56565.     65733.     64497.     41989.     32810.     32194.     29045.     49327.     48613.     53638.
 SUM(YR. 1-3)
                146815.    198327.    254892.    320625.    385122.    427111.    459922.    492116.    521160.    570488.    619101.    672739.
                725054.    776567.    833132.    898864.    963361.   1005351.   1038161.   1070355.   1099400.   1148727.   1197341.   1250979.
               1303293.   1354806.   1411371.   1477104.   1541601.   1583590.   1616401.   1648595.   1677639.   1726967.   1775580.   1829218.
WATER DEMAND (WD)
                  4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                  4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
               1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                142315.    189327.    241392.    302625.    272622.    220111.    158422.     96116.     30660.    -14512.     29601.     78739.
                126554.    173567.    225632.    286864.    256861.    204351.    142661.     80355.     14900.    -30273.     13841.     62979.
                110793.    157806.    209871.    271104.    241101.    188590.    126901.     64595.      -861.    -46034.     -1920.     47218.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=     95567
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    95567,  CHANGE TANK SIZE TO;   360999
 WATER YIELD (WY)
                 53741.     52917.     58107.     67524.     66255.     43134.     33705.     33071.     29836.     50672.     49938.     55100.
 SUM(YR. 1-3)
                200452.    253368.    311475.    378999.    445254.    488388.    522093.    555164.    585001.    635672.    685611.    740711.
                794452.    847368.    905475.    972999.   1039254.   1082388.   1116093.   1149164.   1179001.   1229672.   1279611.   1334711.
               1388452.   1441368.   1499475.   1566999.   1633254.   1676388.   1710093.   1743164.   1773001.   1823672.   1873611.   1928711.
WATER DEMAND (WD)
                  4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                  4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
               1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000
WATER BALANCE (WB)
 SUM(YR. 1-3)
                195952.    244368.    297975.    360999.    332754.    281388.    220593.    159164.     94501.     50672.     96111.    146711.
                195952.    244368.    297975.    360999.    332754.    281388.    220593.    159164.     94501.     50672.     96111.    146711.
                195952.    244368.    297975.    360999.    332754.    281388.    220593.    159164.     94501.     50672.     96111.    146711.
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 3)TWO RSD(LTN-2RASD),2RASD(IN %);23.9947
                     JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
   *C=0.9
                    0.8781     0.8646     0.9494     1.1033     1.0826     0.7048     0.5507     0.5404     0.4875     0.8280     0.8160     0.9003
+++ EFFECTIVE ANNUAL PRECIPITATION=  9.7057 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
    CATCHMENT SIZE;    95567,  TANK SIZE;   360999
 WATER YIELD (WY)
                    52315.     51513.     56565.     65733.     64497.     41989.     32810.     32194.     29045.     49327.     48613.     53638.
 SUM(YR. 1-3)
                   146815.    198327.    254892.    320625.    385122.    427111.    459922.    492116.    521160.    570488.    619101.    672739.
                   725054.    776567.    833132.    898864.    963361.   1005351.   1038161.   1070355.   1099400.   1148727.   1197341.   1250979.
                  1303293.   1354806.   1411371.   1477104.   1541601.   1583590.   1616401.   1648595.   1677639.   1726967.   1775580.   1839218.
WATER DEMAND (WD)
                     4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                     4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                   598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                  1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000
WATER BALANCE (WB)
 SUM(YR. 1-3)
                   142315.    189327.    241392.    302625.    272622.    220111.    158422.     96116.     30660.    -14512.     29601.     78739.
                   126554.    173567.    225632.    286864.    256861.    204351.    142661.     80355.     14900.    -30273.     13841.     62979.
                   110793.    157806.    209871.    271104.    241101.    188590.    126901.     64595.      -861.    -46034.     -1920.     57218.
   ***SKIP ONE ITERATION ***
       IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=    98171
FOR SEASONAL CONSUMPTIVE USE;
    CATCHMENT SIZE;    98171,  CHANGE TANK SIZE TO;   360999
 WATER YIELD (WY)
                    53741.     52917.     58107.     67524.     66255.     43134.     33705.     33071.     29836.     50672.     49938.     55100.
 SUM(YR. 1-3)
                   200452.    253368.    311475.    378999.    445254.    488388.    522093.    555164.    585001.    635672.    685611.    740711.
                   794452.    847368.    905475.    972999.   1039254.   1082388.   1116093.   1149164.   1179001.   1229672.   1279611.   1334711.
                  1388452.   1441368.   1499475.   1566999.   1633254.   1676388.   1710093.   1743164.   1773001.   1823672.   1873611.   1928711.
WATER DEMAND (WD)
                     4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                     4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                   598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                  1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                   195952.    244368.    297975.    360999.    332754.    281388.    220593.    159164.     94501.     50672.     96111.    146711.
                   195952.    244368.    297975.    360999.    332754.    281388.    220593.    159164.     94501.     50672.     96111.    146711.
                   195952.    244368.    297975.    360999.    332754.    281388.    220593.    159164.     94501.     50672.     96111.    146711.
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 FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                       PARAMETERS
  PRECIPITATION        ANNUAL WD  CATCHMENT       TANK
  CASE NAME  IN./YR.        GAL.     SQ.FT.       GAL.
    1   LTN  10.2420      593999      93030     360999
    2  1RSD   9.9702      593999      95565     360999
    3  2RSD   9.7057      593999      98170     360999
    4  3RSD   9.4482      593999     100846     360999
    5  4RSD   9.1975      593999     103594     360999
 SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.19, CASE 2)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
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TABLE D-6-2; COMPUTATION OF WATER CATCHMENT AREA AND STORAGE TANK SIZE
             FOR COILS CREEK WATERSHED, BATTLE MOUNTAIN DISTRICT, NEVADA.
                         RAIN CAN #; 10
                         LOCATION; LAT.- 39°45' N.
                                   LON.=116°40' W.
                         ELEVATION;  6750 FT.
                         WATER REQUIREMENT;
                             CATTLE:  200 HEAD AT 15 GPD. MAY-OCT INCLUSIVE.     540000.0 GALLONS/YEAR
                             HORSES:   10 HEAD AT 15 GPD. JAN-DEC INCLUSIVE.      54000.0 GALLONS/YEAR
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                   JAN     FEB     MAR     APR     MAY     JUN     JUL     AUG     SEP     OCT     NOV     DEC  ANNUAL
RAIN(INCHES)  0.8233  0.8577  0.9988  1.2001  1.2716  0.8506  0.9086  0.9324  0.7369  0.9190  0.8348  0.8121 11.1456
 ANNUAL STANDARD DEVIATION
              0.2085  0.2172  0.2530  0.3040  0.3221  0.2154  0.2301  0.2362  0.1866  0.2328  0.2114  0.2057  2.8231
 DAYS>=.01"
              5.6265  5.9412  6.6643  6.3418  8.0834  5.2573  5.5897  6.0121  4.9740  5.3383  4.6893  4.3226 68.8404
 DAYS>=.10"
              2.9155  3.3790  3.3951  3.5543  4.4606  2.7656  2.7379  3.2040  2.7744  2.9395  2.4563  2.6551 37.2371
 AMOUNT <.1"
              0.1355  0.1281  0.1635  0.1394  0.1811  0.1246  0.1426  0.1404  0.1100  0.1199  0.1117  0.0834  1.5802
 RAINS >=.1"
              0.6877  0.7296  0.8354  1.0607  1.0905  0.7260  0.7661  0.7920  0.6269  0.7990  0.7231  0.7287  9.5657
---------------------------------------------------------------------------------------------------------
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS) FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE RASD*, AND 3)TWO RASD.
   *WHERE; RASD is defined as reduced annual standard deviation by using deficiency index.
 1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
 2)ONE RSD(LTN-RASD),RASD(IN %);18.3450
  ANNUAL PRECIPITATION IS REDUCED BY; 0.5179 INCHES.
  EXCEEDENCE PROBABILITY IS 57.1546 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  10.6279 INCHES EACH YEAR, 57.1546% OF THE TIME.
 3)TWO RSD(LTN-2RASD),2RASD(IN %);36.6900
  ANNUAL PRECIPITATION IS REDUCED BY; 1.0358 INCHES.
  EXCEEDENCE PROBABILITY IS 64.7264 %.  THIS MEANS PRECIPITATION RECEIVED WILL BE
  EQUAL TO OR GREATER THAN  10.1100 INCHES EACH YEAR, 64.7264% OF THE TIME.
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                       JAN        FEB        MAR        APR        MAY        JUN        JUL        AUG        SEP        OCT        NOV        DEC
   *C=0.9
                    0.6189     0.6566     0.7518     0.9546     0.9814     0.6534     0.6894     0.7128     0.5642     0.7191     0.6508     0.6558
          CATCHMENT AREA =   110678 SQUARE FEET.    EFFECTIVE ANNUAL PRECIPITATION = 8.6091 INCHES
 WATER YIELD (WY)
+++++FOR PLOTTING & CALCULATION PURPOSES MASS BALANCE IS CALCULATED AT THE END OF MONTH
                    42705.     45305.     51873.     65865.     67716.     45084.     47570.     49182.     38929.     49618.     44904.     45249
      SUM
                    42705.     88010.    139883.    205748.    273465.    318548.    366118.    415300.    454229.    503847.    548751.    594000.
WATER DEMAND (WD)
                    49500.     99000.    148500.    198000.    247500.    297000.    346500.    396000.    445500.    495000.    544500.    594000.
WATER BALANCE (WB)
                    -6795.     -4195.      2373.     16365.     18216.     -4416.     -1930.      -318.    -10571.       118.     -4596.     -4251.
ANNUAL WATER DEFICIENCY=     37072
FOR CATCHMENT AREA=    110678
 WATER YIELD (WY)
                    42705.     45305.     51873.     65865.     67716.     45084.     47570.     49182.     38929.     49618.     44904.     45249.
 SUM(YR. 1-3)
                   137205.    182510.    234383.    300248.    367965.    413048.    460618.    509800.    548729.    598347.    643251.    688500.
                   731205.    776510.    828383.    894248.    961965.   1007048.   1054618.   1103800.   1142729.   1192347.   1237251.   1282500.
                  1325205.   1370510.   1422383.   1488248.   1555965.   1601048.   1648618.   1697800.   1736729.   1786347.   1831251.   1876500.
WATER DEMAND (WD)
                     4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                     4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                   598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                  1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                   132705.    173510.    220883.    282248.    255465.    206048.    159118.    113800.     58229.     13347.     53751.     94500.
                   132705.    173510.    220883.    282248.    255465.    206048.    159118.    113800.     58229.     13347.     53751.     94500.
                   132705.    173510.    220883.    282248.    255465.    206048.    159118.    113800.     58229.     13347.     53751.     94500
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;    110678,  TANK SIZE;     318520
 WATER YIELD (WY)
                    42705.     45305.     51873.     65865.     67716.     45084.     47570.     49182.     38929.     49618.     44904.     45249.
 SUM(YR. 1-3)
                   173477.    218782.    270655.    336520.    404237.    449320.    496890.    546072.    585001.    634619.    679523.    724772.
                   767477.    812782.    864655.    930520.    998237.   1043320.   1090890.   1140072.   1179001.   1228619.   1273523.   1318772.
                  1361477.   1406782.   1458655.   1524520.   1592237.   1637320.   1684890.   1734072.   1773001.   1822619.   1867523.   1912772.
WATER DEMAND (WD)
                     4500.      4500.      4500.      4500.     94500.     94500.     94500.     94500.     94500.     94500.      4500.      4500.
 SUM(YR. 1-3)
                     4500.      9000.     13500.     18000.    112500.    207000.    301500.    396000.    490500.    585000.    589500.    594000.
                   598500.    603000.    607500.    612000.    706500.    801000.    895500.    990000.   1084500.   1179000.   1183500.   1188000.
                  1192500.   1197000.   1201500.   1206000.   1300500.   1395000.   1489500.   1584000.   1678500.   1773000.   1777500.   1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                   168977.    209782.    257155.    318520.    291737.    242320.    195390.    150072.     94501.     49619.     90023.    130772.
                   168977.    209782.    257155.    318520.    291737.    242320.    195390.    150072.     94501.     49619.     90023.    130772.
                   168977.    209782.    257155.    318520.    291737.    242320.    195390.    150072.     94501.     49619.     90023.    130772.
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 2)ONE RSD(LTN-RASD),RASD(IN %);18.3450
                         JAN         FEB         MAR         APR         MAY         JUN         JUL         AUG         SEP         OCT         NOV         DEC
  *C=0.9
                        0.5902      0.6261      0.7169      0.9103      0.9358      0.6231      0.6574      0.6797      0.5380      0.6857      0.6206      0.6253
+++ EFFECTIVE ANNUAL PRECIPITATION=  8.2091 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   110678,  TANK SIZE;    318520
 WATER YIELD (WY)
                        40720.      43200.      49463.      62805.      64570.      42989.      45359.      46897.      37120.      47313.      42818.      43146.
 SUM(YR. 1-3)
                       135220.     178420.     227883.     290688.     355258.     398247.     443606.     490503.     527623.     574935.     617753.     660899.
                       701620.     744820.     794283.     857088.     921657.     964646.    1010005.    1056902.    1094022.    1141335.    1184153.    1227299.
                      1268019.    1311219.    1360682.    1423487.    1488057.    1531046.    1576405.    1623302.    1660421.    1707734.    1750552.    1793698.
WATER DEMAND (WD)
                         4500.       4500.       4500.       4500.      94500.      94500.      94500.      94500.      94500.      94500.       4500.       4500.
 SUM(YR. 1-3)
                         4500.       9000.      13500.      18000.     112500.     207000.     301500.     396000.     490500.     585000.     589500.     594000.
                       598500.     603000.     607500.     612000.     706500.     801000.     895500.     990000.    1084500.    1179000.    1183500.    1188000.
                      1192500.    1197000.    1201500.    1206000.    1300500.    1395000.    1489500.    1584000.    1678500.    1773000.    1777500.    1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                       130720.     169420.     214383.     272688.     242758.     191247.     142106.      94503.      37123.     -10065.      28253.      66899.
                       103120.     141820.     186783.     245088.     215157.     163646.     114505.      66902.       9522.     -37665.        453.      39299.
                        75519.     114219.     159182.     217487.     187557.     136046.      86905.      39302.     -18079.     -65266.     -26948.      11698.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=    116071
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   116071,  CHANGE TANK SIZE TO;    318520
 WATER YIELD (WY)
                        42705.      45305.      51873.      65865.      67716.      45084.      47570.      49182.      38929.      49618.      44904.      45249.
 SUM(YR. 1-3)
                       173477.     218782.     270655.     336520.     404237.     449320.     496890.     546072.     585001.     634619.     679523.     724772.
                       767477.     812782.     864655.     930520.     998237.    1043320.    1090890.    1140072.    1179001.    1228619.    1273523.    1318772.
                      1361477.    1406782.    1458655.    1524520.    1592237.    1637320.    1684890.    1734072.    1773001.    1822619.    1867523.    1912772.
 WATER DEMAND (WD)
                         4500.       4500.       4500.       4500.      94500.      94500.      94500.      94500.      94500.      94500.       4500.       4500.
 SUM(YR. 1-3)
                         4500.       9000.      13500.      18000.     112500.     207000.     301500.     396000.     490500.     585000.     589500.     594000.
                       598500.     603000.     607500.     612000.     706500.     801000.     895500.     990000.    1084500.    1179000.    1183500.    1188000.
                      1192500.    1197000.    1201500.    1206000.    1300500.    1395000.    1489500.    1584000.    1678500.    1773000.    1777500.    1782000.
 WATER BALANCE (WB)
 SUM(YR. 1-3)
                       168977.     209782.     257155.     318520.     291737.     242320.     195390.     150072.      94501.      49619.      90023.     130772.
                       168977.     209782.     257155.     318520.     291737.     242320.     195390.     150072.      94501.      49619.      90023.     130772.
                       168977.     209782.     257155.     318520.     291737.     242320.     195390.     150072.      94501.      49619.      90023.     130772.
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 3)TWO RSD(LTN-2RASD),2RASD(IN %);36.6900
                          JAN         FEB         MAR          APR          MAY          JUN          JUL          AUG          SEP          OCT          NOV          DEC
  *C=0.9
                       0.5628      0.5970      0.6836       0.8680       0.8924       0.5941       0.6269       0.6481       0.5130       0.6539       0.5917       0.5963
+++ EFFECTIVE ANNUAL PRECIPITATION=  7.8276 INCHES.
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   116071,  TANK SIZE;    318520
 WATER YIELD (WY)
                       40720.      43200.      49463.       62805.       64570.       42989.       45359.       46897.       37120.       47313.       42818.       43146.
 SUM(YR. 1-3)
                      135220.     178420.     227883.      290688.      355258.      398247.      443606.      490503.      527623.      574935.      617753.      660899.
                      701620.     744820.     794283.      857088.      921657.      964646.     1010005.     1056902.     1094022.     1141335.     1184153.     1227299.
                     1268019.    1311219.    1360682.     1423487.     1488057.     1531046.     1576405.     1623302.     1660421.     1707734.     1750552.     1793698.
WATER DEMAND (WD)
                        4500.       4500.       4500.        4500.       94500.       94500.       94500.       94500.       94500.       94500.        4500.        4500.
 SUM(YR. 1-3)
                        4500.       9000.      13500.       18000.      112500.      207000.      301500.      396000.      490500.      585000.      589500.      594000.
                      598500.     603000.     607500.      612000.      706500.      801000.      895500.      990000.     1084500.     1179000.     1183500.     1188000.
                     1192500.    1197000.    1201500.     1206000.     1300500.     1395000.     1489500.     1584000.     1678500.     1773000.     1777500.     1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                      130720.     169420.     214383.      272688.      242758.      191247.      142106.       94503.       37123.      -10065.       28253.       66899.
                      103120.     141820.     186783.      245088.      215157.      163646.      114505.       66902.        9522.      -37665.         653.       39299.
                       75519.     114219.     159182.      217487.      187557.      136046.       86905.       39302.      -18079.      -65266.      -26948.       11698.
  ***SKIP ONE ITERATION ***
      IN ORDER TO PRODUCE ENOUGH AWY. FOR AWD. THE CATCHMENT AREA (SQ. FT.)=    121727
FOR SEASONAL CONSUMPTIVE USE;
     CATCHMENT SIZE;   121727,  CHANGE TANK SIZE TO;    318520
 WATER YIELD (WY)
                       42705.      45305.      51873.       65865..      67716.       45084.       47570.       49182.       38929.       49618.       44904.       45249.
 SUM(YR. 1-3)
                      173477.     218782.     270655.      336520.      404237.      449320.      496890.      546072.      585001.      634619.      679523.      724772.
                      767477.     812782.     864655.      930520.      998237.     1043320.     1090890.     1140072.     1179001.     1228619.     1273523.     1318772.
                     1361477.    1406782.    1458655.     1524520.     1592237.     1637320.     1684890.     1734072.     1773001.     1822619.     1867523.     1912772.
WATER DEMAND (WD)
                        4500.       4500.       4500.        4500.       94500.       94500.       94500.       94500.       94500.       94500.        4500.        4500.
 SUM(YR. 1-3)
                        4500.       9000.      13500.       18000.      112500.      207000.      301500.      396000.      490500.      585000.      589500.      594000.
                      598500.     603000.     607500.      612000.      706500.      801000.      895500.      990000.     1084500.     1179000.     1183500.     1188000.
                     1192500.    1197000.    1201500.     1206000.     1300500.     1395000.     1489500.     1584000.     1678500.     1773000.     1777500.     1782000.
WATER BALANCE (WB)
 SUM(YR. 1-3)
                      168977.     209782.     257155.      318520.      291737.      242320.      195390.      150072.       94501.       49619.       90023.      130772.
                      168977.     209782.     257155.      318520.      291737.      242320.      195390.      150072.       94501.       49619.       90023.      130772
                      168977.     209782.     257155.      318520.      291737.      242320.      195390.      150072.       94501.       49619.       90023.      130772.
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 FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                          PARAMETERS
  PRECIPITATION           ANNUAL WD   CATCHMENT        TANK
  CASE NAME   IN./YR.        GAL.       SQ.FT.         GAL.
    1    LTN    8.6091      594000      110677       318520
    2   1RSD    8.2091      594000      116070       318520
    3   2RSD    7.8276      594000      121726       318520
    4   3RSD    7.4639      594000      127658       318520
    5   4RSD    7.1171      594000      133878       318520
 SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.22, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
      1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE(NCS), 4)TANK VOLUME(NTV).
 USER MAY ALSO SELECT NOT TO RERUN; 5)END.
 ENTER CODE NUMBER FOR;
   1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
  5
```

Appendix 1

Glossary and Mathematical Symbols

AG Expected value of mean rainfall in August.

AP Expected value of mean rainfall in January.

C_A A group of Continental weather types with warm air advection throughout the Great Basin.

CI Continental Component - represents that portion of precipitation arising from cyclonic activity over the continent, recondensation of moisture from various sources.

Cyclonic Activity - a storm with precipitation and winds rotating about a moving center of low atmospheric pressure.

DC Daily water consumptive use (GAL./Day) by animals.

DI Deficiency Index - a measure of the degree of precipitation shortage; the high the deficiency index value, the higher the probability of a moisture deficit.

EP Exceedance Probability - the probability of a given precipitation intensity being equalled or exceeded.

EDV Expected Dominant Vegetation Type - by classifying the deficiency index and mean annual precipitation, an expected dominant vegetation type is determined for a specific site.

FG Proportion of midsummer rainfall arising from the Gulf Component.

FP Proportion of midwinter rainfall arising from the Pacific Component.

Frequency - the number of days per month and per year that precipitation may be expected to occur

Growing Season - number of days per year during which temperatures are always above 32 degrees F.

GI Gulf Component - represents that portion of precipitation arising from convective thunderstorms, utilizing moisture from the tropical oceans.

Isohyetal Map - map showing lines of equal mean annual precipitation

Isoline - a line on a map along which there is a constant value, as of precipitation or temperature.

K_d Measure of dominance, determined form the relative importance of each component.

LGD_i Frequency of monthly precipitation greater than orequat to 0.1 inches/day.

LSD_i Computed long-term mean rainfall at a given station(s).

Macroscopic - on a large-scale, regional basis.

MC Months of water consumption.

MG Magnitude of midsummer Gulf rainfall.

MP Magnitude of midwinter Pacific rainfall.

NA Number of animal

OL Orographic Lifting - the process by which air is lifted and cooled as it passes over a topographic barrier, the air dropping its moisture as it cools.

PI Pacific Component - represents that portion of precipitation arising from the Pacific Ocean moisture source.

Rain Shadow - areas of low frequency precipitation that occur due to the air retaining more of its moisture as it warms while descending leeward slopes

SD Standard Deviation - the square root of the average of the squares of the deviation from the mean.

SI In the component method: the computed mean monthly rainfall in month i, determined as the sum of three components.

Transitory Frontal System - an air mass which moves out of its source region and collides with other air masses of unlike qualities.

VAR Variability - the tendency of monthly and annual precipitation amounts to change with respect to their long-term means.

VC Variability Coefficient - also known in statistics as the coefficient of variation, the standard deviation of precipitation divided by the mean precipitation amount.

WB_i Monthly water balance; a function of water demand and water yield.

WD_i Monthly water demand; results of animal number, daily consumptive rate and length of use.

WY_i Monthly water yield; a function precipitation and catchment area.

YB Period required for good simulation of the long-term annual march of rainfall.

Appendix 2

Form 1221-2
(June 1969)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEVADA STATE OFFICE
MANUAL TRANSMITTAL SHEET

Release
NSO 9-12

Date
9/20/73

Subject

9173 - Studies and Hydrology

1. Explanation of Material Transmitted: This release describes a statistical method of estimating the long-term rainfall regime at Nevada stations with incomplete records.

2. Reports required: None.

3. Material Superseded: Manual pages superseded by this release are listed under "Remove" below. No other directives are superseded.

4. Filing Instructions: After the attached sheets have been filed as indicated, this transmittal sheet may be destroyed.

REMOVE	INSERT
TC-1 & 2	TC-1 & 3 .4 (8 pages) Illustrations 27-50 Appendix 1 Total: 35 pages

Associate State Director, Nevada

9173 - STUDIES AND HYDROLOGY

Table of Contents

.01 Purpose
.02 Objectives and Background
  A. Objectives
  B. Background
.03 Authority
.04 Responsibility
.05 Definition
.06 Policy

.1 Types of Analyses Covered
  .11 Analysis of a Flood Hydrograph
  .12 Computation of Hypothetical Hydrographs
  .13 Basic Considerations
  .14 Rainfall Determinations Related to Natural Hydrograph Analysis
    A. Mass Rainfall Curves
    B. Hyetographs
  .15 Components of Natural Hydrographs
    A. General
    B. Normal Recession Curves
  .16 Subdivision of Hydrographs
  .17 Infiltration Indices
    A. General
    B. Initial Loss
    C. Infiltration

.2 Unit Hydrographs
  .21 General
  .22 Unit Hydrograph from Isolated Unit Storms
  .23 Synthetic Unit Hydrographs
  .24 Snyder's Synthetic Unit Hydrograph Relations
  .25 Concentration of Runoff Near Peak
  .26 S-Curve Hydrograph
  .27 Summary of Synthetic Unit Hydrograph Computations
  .28 Transposition of Record Storm, Rainfall Excess Estimate

.3 Nevada Watershed Studies
  .31 Procedure
    A. Material Available
      1. Stream Flow Recorder Hydrograph
      2. Crest Stage Gage Records
      3. Tipping Bucket
      4. Rain Can Records
      5. Stream X-Sections
      6. Map of Area
    B. Channel Rating Curve
    C. Isohyetal Maps

9173 - STUDIES AND HYDROLOGY

Table of Contents

.32 Unit Hydrograph Adjustment
  A. The Widths of Unit Hydrographs
  B. Discharge Ordinates
  C. Coefficients 640 Cp and Ct
  D. Values of W_{50} and W_{75}
  E. Tentative Synthetic Unit Hydrograph
  F. Provisional S-Curve Hydrograph
.33 Sample Computation Hypothetical Hydrograph
.34 Flood Routing a Design Storm Through a Reservoir
.35 Design Storm Transposed from Steptoe Hydro Area to Duckwater

.4 Computation of Mean Annual Rainfall and Frequency of Daily Rains
.41 Introduction
  A. Purpose
  B. Objective
  C. Authority
  D. Responsibility
  E. Definition
  F. Policy
.42 Types of Analyses Covered
  A. Estimation of Long-Term Rainfall Regime
  B. Computation of Component Amounts of the Annual March of Rainfall
  C. Basic Considerations
  D. Rainfall Determinations Related to Calculating the Annual March of Rainfall at a Selected Station
  E. Weather Seasons
  F. Computation of the Three Components, Pacific, Gulf, and Continental
  G. Length of Record Required for the Estimation of Mean Rainfall
  H. Computing the Monthly and Annual Frequency of 24-Hour Precipitation Amounts
  I. Effectiveness of Rainfall in the Great Basin
  J. Climatology of the Rainfall Regime

Illustrations

1. Stream Flow Recorder Hydrograph
2. Storm Summary - Page 1
3. Storm Summary - Page 2

9173 - STUDIES AND HYDROLOGY

Table of Contents

4. Slope Area Method - Page 1
5. Slope Area Method - Page 2
6. Stream Rating Curve
7. Isohyetal Map
8. Rainstorm
9. Tipping Bucket Records
10. Thiesson Polygon
11. Peak Discharge from Crest Stage Gages
12. Duckwater Stream Hydrograph - Page 1
13. Duckwater Stream Hydrograph - Page 2
14. Unit Hydrograph
15. S-Curve Hydrograph
16. Computation of Unit Hydrograph
17. Steptoe Storm 8/5/64
18. Isohyetal Map - Design Storm
19. Thiesson Polygon - Design Storm
20. Mass Curve and Hyetograph - Design Storm
21. Computation of Hypothetical Hydrograph
22. Mass Diagram of Design Storm
23. Design Storm Hydrograph
24. Reservoir Elevation - Capacity Curve
25. Form 9170-2 Hydraulic Computations
26. Elevation Discharge
27. Percentage of Winter Rainfall Arising from the Pacific Component in the Great Basin
28. Percentage of Midsummer Rainfall Arising from the Gulf Component in the Great Basin
29. Location of Standard Continental Curves in the Great Basin
30. Period Required for a High Correlation in the Shape of the Annual Curve, as a Function of the Measure of Dominance
31. Seasonal Rainfall Variability Curves
32. Annual Rainfall Variability Curves
33. Period Required for a Small Percentage Difference in the Mean Annual Rainfall, as a Function of the Annual Rainfall Variability
34. Frequency Curves for Measurable Precipitation, January-April
35. Frequency Curves for Measurable Precipitation, May-August
36. Frequency Curves for Measurable Precipitation, September-December
37. Frequency Curves for 24-Hour Precipitation ≥ 0.10 Inch, January-April
38. Frequency Curves for 24-Hour Precipitation ≥ 0.10 Inch, May-August
39. Frequency Curves for 24-Hour Precipitation ≥ 0.10 Inch, September-December
40. Frequency Curves for 24-Hour Precipitation ≥ 0.25 Inch, January-April

9173 - STUDIES AND HYDROLOGY

Table of Contents

41. Frequency Curves for 24-Hour Precipitation ≥ 0.25 Inch, May-August
42. Frequency Curves for 24-Hour Precipitation ≥ 0.25 Inch, September-December
43. Frequency Curves for 24-Hour Precipitation ≥ 0.50 Inch, January-April
44. Frequency Curves for 24-Hour Precipitation ≥ 0.50 Inch, May-August
45. Frequency Curves for 24-Hour Precipitation ≥ 0.50 Inch, September-December
46. Frequency Curves for 24-Hour Precipitation ≥ 1.00 Inch, January-April
47. Frequency Curves for 24-Hour Precipitation ≥ 1.00 Inch, May-August
48. Frequency Curves for 24-Hour Precipitation ≥ 1.00 Inch, September-December
49. Seasonal Curves of the Rainfall Deficiency Index
50. Annual Curves and Frequency Distribution of the Rainfall Deficiency Index

Appendices

1. Glossary of Mathematical Symbols Used in the Text

.4 Computation of Mean Annual Rainfall and Frequency of Daily Rains.

.41 Introduction.

A. Purpose. This release describes and illustrates a newly developed method of estimating the long-term rainfall regime at Nevada stations with incomplete records. Because all land uses are related to precipitation, a complete description and understanding of the rainfall regime is essential. In an arid and semi-arid area such as Nevada, the character of precipitation is notoriously variable from year to year. Without procedures such as described in "Characteristics of Rainfall in the Great Basin," a continuous record of 30 years is necessary to get meaningful station values of rainfall means, frequencies and intensities at an individual station.

Since most areas in Nevada have only incomplete records ($\leq$ 30 years), and many records are of only a few years in length, this procedure has been devised to analyze these short-term records statistically and by the use of synoptic climatology,* using as a base the long-term precipitation records from other stations located in the Great Basin. This procedure reveals effectiveness of moisture sources and behavior of rainfall triggering mechanisms at different seasons.

The rainfall regime includes the annual march of rainfall and the frequency of daily rains. The annual march of rainfall is expressed in terms of monthly means, annual total, dominance of individual components (storm types), and variability. These data are used to calculate the reliability. The long-term annual march of rainfall is simulated and the reliability of the simulation is tested. The frequencies of daily rains are expressed in 24-hour amounts.

B. Objectives. To provide management with a tool to describe the long-term rainfall regime at any point in Nevada, using an incomplete or short-term record.

C. Authority. Authority for establishing and operating the State Manual System is pursuant to BLM Manual 1221.

Authority to reproduce portions of the Desert Research Publication, "Characteristics of Rainfall in the Great Basin," in BLM Manual Supplement form has been granted by the Desert Research Institute by letter dated 9/29/71, and John G. Houghton, author, by letter dated 11/4/71.

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* Behavior of a climatic element explained in terms of atmospheric circulation patterns.

D. Responsibility. The Division of Technical Services, Branch of Engineering, is responsible for training of State and District personnel in the application of the procedures of the Manual. The Division of Resources, Division of Technical Services and District Managers are responsible for carrying out this directive.

E. Definition. See glossary.

F. Policy. Consideration of the long-term rainfall regime is an essential portion of the basic data required when making management decisions concerning multiple-use of the public lands. Therefore, when calculating the long-term rainfall regime the procedures set forth in this Manual Supplement shall be used to the extent they are applicable.

Short-term or incomplete records shall be obtained from Nevada Watershed Studies, N.O.A.A.* cooperative data collection stations and/or 2-3 years minimum record at the job site.

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* National Oceanic and Atmospheric Administration

.42 Types of Analyses Covered.

A. Estimation of long-term rainfall regime as discussed herein includes—

1. Calculation of components of rainfall given: (1) station location, and (2) the annual march of rainfall over a record of minimum length.

2. The monthly and annual rainfall variability.

3. The frequency of rainy days for 24-hour amounts ≥ .01, .10, .25, .50, and 1.00 inch, and monthly nomograms are included, showing the relationship between the frequency, latitude and mean monthly rainfall.

B. Computation of component amounts of the annual march of rainfall, based on data derived from selected long-term records in the Great Basin.

1. Determination of monthly component amounts of Pacific Component, Gulf Component and Continental Component from a station with a short-term record.

2. Determination of variability of rainfall at the station.

3. Determination of expected frequency of 24-hour amounts ≥ .01, .10, .25, .50, and 1.00 inch.

C. Basic Considerations.

1. The characteristics of long-term annual march of rainfall in the Great Basin can be described by the sum of three components, (1) Pacific Component, (2) Gulf Component, and (3) Continental Component. Each of these represents a particular storm type having a definite seasonal pattern. Using a short-term record, the reliability of estimates of the annual march of rainfall can be calculated utilizing the study "Characteristics of Rainfall in the Great Basin," published by the Desert Research Institute.

The frequency of 24-hour amounts is dependent on latitude and mean monthly amounts of rainfall. For all amounts the frequencies increase directly with mean rainfall, while those for light amounts increase with latitude and those for heavy amounts decrease with latitude. The variability of rainfall decreases with increasing rainfall and latitude.

D. Rainfall Determinations Related to Calculating the Annual March of Rainfall at a Selected Station.

1. Rainfall data collected from the Nevada Watershed Studies.

2. Climatological data published by the N.O.A.A.

3. Monthly amounts collected on site by BLM personnel or other interested parties. (Minimum of 2 years or more required to obtain useful information utilizing this method, depending on the location.)

E. Weather Seasons.

1. For comparative synoptic analysis of the storm types in the Great Basin, the calendar year is divided into four seasonal periods:

a. Winter: December through February. During this period the primary triggering mechanism consists of transitory frontal systems from the Pacific, with a minor contribution from continental cyclones developing over the Great Basin.

b. Cold Transition: March, April, and November. During these months Pacific frontal systems usually represent the major rainfall source, but continental cyclones are an important secondary source.

c. Warm Transition: May, June, and October. During these months continental cyclones represent the major rainfall source, while Pacific fronts are a significant secondary source.

d. Summer: July through September. During this period most rainfall is convective, associated with maritime tropical air aloft from the Gulf of Mexico. Pacific fronts and continental cyclones represent minor secondary sources.

F. Computation of the Three Components, Pacific, Gulf and Continental.

1. Provided that the record is adequate, the expected annual march of rainfall may be determined from the observed set of monthly means, by computing each of the three components and summing them together by months. The following procedure is used:

a. The observed annual march of rainfall $\overline{R}_i$ at the station is specified and adjusted to equal months of 30 days, to get the set of 12 monthly values:

For 31-day months: $.9\underline{7} \times \overline{R}_i$
For February: $1.07 \times \overline{R}_i$

$\overline{R}_i$ used in all calculations for computing the three components are $\overline{R}_i$ values adjusted to equal months of 30 days.

b. The Standard Pacific curve is specified as the set of 12 monthly values:

$PS_i/100$ = Decimal value of Standard Pacific Curve in month i.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.00	.901	.690	.366	.183	.067	.015	.015	.067	.296	.536	.925

c. The midwinter magnitude of Pacific rainfall at the station is computed as $M_p = f_pA_p$, (Table 1) where A_p is the expected amount of midwinter rainfall ($A_p = .354\ (\overline{R}_1 + \overline{R}_2 + \overline{R}_{12})$) and f_p is the proportion of this amount arising from Pacific sources (determined by locating the station on illustration 27 and converting the corresponding percentage to a decimal fraction, Table 1).

d. The Pacific component is computed as the set of 12 monthly values:

$$P_i = M_p \frac{PS_i}{100}$$ (One calculation needed for each month.)

TABLE 1

COMPUTATION OF THE PACIFIC COMPONENT AT ELKO, NEVADA

Parameter	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Total $\overline{R}_i$[a]	1.16	.89	.83	.82	.95	.71	.40	.30	.34	.75	.88	1.01	9.04
Adjusted[b]	1.12	.95	.80	.82	.92	.71	.38	.29	.34	.72	.88	.97	8.93
Ap	.354x(1.12 + .95 + .97) = 1.08												
fp	From Illustration 27: .85												
Mp	.85 x 1.08 = .92												
$PS_i/100$	1.00	.901	.690	.366	.183	.067	.015	.015	.067	.296	.536	.925	
Pi	.92	.82	.63	.33	.17	.06	.01	.01	.06	.27	.49	.85	4.65

[a] Climatological standard normal precipitation, 1931-1960.

[b] Adjusted to equal months of 30 days.

e. The Standard Gulf curve is specified as the set of 12 monthly values:

$GS_i/100$ = Decimal Value of Standard Gulf curve in month i.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
0	0	0	0	0	0	.844	1.00	.568	0	0	0

f. The midsummer magnitude of Gulf rainfall at the station is computed as $M_g = f_gA_g$, Table 2, where A_g is the expected amount of midsummer rainfall ($A_g = .542\ (\overline{R}_7 + \overline{R}_8)$), and f_g is the proportion of this amount arising from Gulf sources (determined by locating the station on Illustration 28 and converting the corresponding percentage to a decimal fraction).

g. The Gulf component is computed as the set of 12 monthly values:

$G_i = M_g \ (GS_i/100)$ (One calculation needed for each month) (Table 2)

TABLE 2

COMPUTATION OF THE GULF COMPONENT AT ELKO, NEVADA

Parameter	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Total $\overline{R}_i$[a]	1.16	.89	.83	.82	.95	.71	.40	.30	.34	.75	.88	1.01	9.04
Adjusted[b]	1.12	.95	.80	.82	.92	.71	.38	.29	.34	.72	.88	.97	8.93
A_g	$.542 \times (.38 + .29) = .36$												
f_g	From Illustration 28: .91												
M_g	$.91 \times .36 = .33$												
$GS_i/100$	0	0	0	0	0	0	.844	1.00	.568	0	0	0	
G_i	.00	.00	.00	.00	.00	.00	.28	.33	.18	.00	.00	.00	.79

[a] Climatological standard normal precipitation, 1931-1960.

[b] Adjusted to equal months of 30 days.

h. The station is located in one of the six regions in Illustration 29. The standard Continental curve for the appropriate region is specified as the set of 12 monthly values from Table 3.

TABLE 3

STANDARD CONTINENTAL COMPONENT CURVES

Curve	Decimal Values of Annual Total Continental Rainfall (CS_i)											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
C1	.118	.128	.121	.112	.070	.043	.011	.001	.038	.116	.131	.111
C2	.059	.109	.135	.154	.133	.086	.007	.003	.007	.151	.097	.059
C3	.030	.064	.110	.186	.175	.124	.005	.012	.026	.138	.095	.035
C4	.033	.064	.095	.169	.194	.140	.021	.001	.033	.123	.088	.039
C5	.027	.045	.063	.150	.218	.192	.015	.002	.049	.120	.085	.034
C6	.025	.015	.003	.082	.239	.263	.067	.001	.038	.112	.094	.062

i. The annual total Continental precipitation at the station is computed as the algebraic sum of 12 monthly values $\sum_i CR_i$, where CR_i is the unadjusted Continental remainder in month i$(CR_i = \overline{R}_i-(P_i + G_i))$.

TABLE 4

COMPUTATION OF THE UNADJUSTED CONTINENTAL REMAINDERS AT ELKO, NEVADA

Parameter	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Total $\overline{R}_i$[a]	1.16	.89	.83	.82	.95	.71	.40	.30	.34	.75	.88	1.01	9.04
Adjusted[b]	1.12	.95	.80	.82	.92	.71	.38	.29	.34	.72	.88	.97	8.93
P_i[c]	.92	.82	.63	.33	.17	.06	.01	.01	.06	.27	.48	.85	4.65
G_i[c]	.00	.00	.00	.00	.00	.00	.28	.33	.18	.00	.00	.00	.79
P_i+G_i	.92	.82	.63	.33	.17	.06	.29	.34	.24	.27	.49	.85	5.44
CR_i	.20	.13	.17	.49	.75	.65	.09	-.05	.10	.45	.39	.12	3.49[d]

[a] Climatological standard normal precipitation, 1931-1960.

[b] Adjusted to equal months of 30 days.

[c] Pacific and Gulf components.

[d] ΣCR_i

j. The adjusted component is computed as the set of 12 monthly values,

$C_i = \Sigma CR_i \; CS_i$ (One calculation required for each month.)

TABLE 5

COMPUTATION OF THE ADJUSTED CONTINENTAL COMPONENT AT ELKO, NEVADA

Parameter	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
CR_i[a]	.20	.13	.17	.49	.75	.65	.09	-.05	.10	.45	.39	.12	3.49[d]
$CS_i(C5)$[b]	.027	.045	.063	.150	.218	.192	.015	.002	.049	.120	.085	.034	1.00
C_i[c]	.09	.16	.22	.52	.76	.67	.05	.01	.17	.42	.30	.12	3.49

[a] Unadjusted Continental remainders.

[b] Standard Continental curve in region C5 Decimal Values.

[c] Adjusted Continental Component.

[d] ΣCR_i

k. The expected annual march of rainfall at the station (Table 6) is computed as the sum of the three components, using the formula:

$$S_i = P_i + G_i + C_i$$ (One calculation needed for each month)

l. The monthly values of S_i are converted from equal months of 30 days to values representing months of actual length.

TABLE 6

THE ANNUAL MARCH OF RAINFALL AT ELKO, NEVADA

Parameter	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
P_i	.92	.82	.63	.33	.17	.06	.01	.01	.06	.27	.49	.85	4.65
G_i	.00	.00	.00	.00	.00	.00	.28	.33	.18	.00	.00	.00	.79
C_i	.09	.16	.22	.52	.76	.67	.05	.01	.17	.42	.30	.12	3.49
S_i	1.01	.98	.85	.85	.93	.73	.34	.35	.41	.69	.79	.97	8.93
Adjusted[a]	1.04	.92	.88	.85	.96	.73	.35	.36	.41	.71	.79	1.01	9.01

[a] Adjusted to calendar months.

G. Length of record required for the estimation of mean rainfall.

1. In order to determine the index periods for a station being subjected to component analysis, the only information needed is that necessary for the component analysis: the station location and the observed annual march of rainfall. The index periods depend only on two parameters: the measure of dominance and the annual variability. The following steps are involved in computing the reference periods at individual stations:

a. The observed annual march of rainfall at the station is specified and subjected to component analysis. This gives the mean annual total (ΣS_i) and the constituent annual amounts arising from each component (ΣP_i, ΣG_i, and ΣC_i).

b. The measure of dominance (K_d) is computed from the values of ΣP_i, ΣG_i, ΣC_i and ΣS_i.

$$K_d = \frac{(\Sigma P_i)^2 + (\Sigma G_i)^2 + (\Sigma C_i)^2}{(\Sigma S_i)^2}$$

c. The periods required for a given correlation in the shape of the annual curve ($Y_{.80}$, $Y_{.90}$, and $Y_{.95}$) are determined from K_d, using the regression lines in Illustration 30.

d. The general variability (V_y) is computed utilizing Illustration 31, seasonal rainfall variability curves, and Illustration 32, annual variability curve.

Enter curves with monthly mean rainfall $\overline{R}_i$ and the latitude of the station for monthly variability. The same process is used to compute annual variability by using $\overline{R}$ annual. Where available, use 30-year normals for $\overline{R}_i$; otherwise, use the computed mean values S_i adjusted to months of actual length. The standard deviation (in inches) is computed by: $\sigma_y = V_y \overline{R}_i$.

TABLE 7

COMPUTATION OF THE ANNUAL MARCH OF RAINFALL VARIABILITY AT ELKO, NEVADA (LATITUDE 41°N)

Parameter	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
$\overline{R}_i$ [a]	1.16	.89	.83	.82	.95	.71	.40	.30	.34	.75	.88	1.01	9.04
Illus. 31													
V_y [b]	.63	.66	.71	.72	.76	.82	1.20	1.28	1.24	.81	.70	.64	.24
σ_y [c]	.73	.59	.59	.59	.72	.58	.48	.38	.42	.61	.62	.65	2.17

[a] Based on the period y = 1931-1960

[b] Variability of mean monthly rainfall for each calendar month, and mean annual rainfall for the year.

[c] Standard deviation of monthly and annual rainfall (inches).

e. The periods required for the percentage difference between the observed and expected annual total rainfall to fall below a certain threshold (Y_{20}, Y_{10}, Y_5) are determined from V_y, using the regression lines in Illustration 33.

f. The required period for passable simulation is computed as:

$$Y_a = \frac{1}{2} (Y_{.80} + Y_{20}).$$

g. The required period for good simulation is computed as:

$$Y_b = \frac{1}{2} (Y_{.90} + Y_{10}).$$

h. The required period for close simulation is computed as:

$$Y_c = \frac{1}{2} (Y_{.95} + Y_5).$$

TABLE 8

COMPUTATION OF THE INDEX PERIODS FOR SIMULATING
THE ANNUAL MARCH OF RAINFALL AT ELKO, NEVADA

Parameter	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
P_i	.92	.82	.63	.33	.17	.06	.01	.01	.06	.27	.49	.85	4.65
G_i	.00	.00	.00	.00	.00	.00	.28	.33	.18	.00	.00	.00	.79
C_i	.09	.16	.22	.52	.76	.67	.05	.01	.17	.42	.30	.12	3.49
S_i	1.01	.98	.85	.85	.93	.73	.34	.35	.41	.69	.79	.97	8.93
Adjusted[a]	1.04	.92	.88	.85	.96	.73	.35	.36	.41	.71	.79	1.01	9.01
K_d	$(4.65^2 + .79^2 + 3.49^2)/8.93^2 = .43$												
$Y_{.80}$	From Illustration 30: 2.1 years												
$Y_{.90}$	From Illustration 30: 5.6 years												
$Y_{.95}$	From Illustration 30: 17.4 years												
V_y	From Illustration 32: (Latitude 41°N, annual rainfall 9.01''): .24												
Y_{20}	From Illustration 33: 2.8 years												
Y_{10}	From Illustration 33: 7.0 years												
Y_5	From Illustration 33: 12.4 years												
Y_a	1/2 (2.1 + 2.8) = 2.5 years												
Y_b	1/2 (5.6 + 7.0) = 6.3 years												
Y_c	1/2 (17.4 + 12.4) = 14.9 years												

[a] S_i adjusted to months of actual length.

H. Computing the Monthly and Annual Frequency of 24-Hour Precipitation Amounts.

1. Utilizing nomograms, illustrations 34 thru 48, for each month the mean number of days with precipitation equal to or exceeding .01,

.10, .25, .50 and 1.00 inch can be determined by calendar months for any point in the Great Basin given latitude and the annual march of mean monthly rainfall. Then the annual number of days with rainfall at each intensity is computed as the sum of the 12 monthly frequencies.

TABLE 9

FREQUENCY OF 24-HOUR PRECIPITATION AT ELKO

Parameter	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Days ⩾.01	7.9	7.9	7.2	6.0	8.2	5.7	2.9	3.3	4.0	5.0	5.0	6.9	70 da.
Days ⩾.10	4.1	3.8	3.6	2.9	3.8	2.9	1.1	1.5	2.0	2.5	2.8	3.9	35 da.
Days ⩾.25	1.7	1.4	1.5	1.4	1.3	1.4	.6	.7	.9	1.3	1.7	1.6	16 da.
Days ⩾.50	.6	.5	.4	.5	.6	.6	.3	.3	.3	.6	.8	.5	6 da.
Days ⩾1.00	.2	.1	.1	.1	.2	.2	1/30	1/30	1/20	.1	.2	.2	1½ da.
% ⩾.25	22	18	21	23	16	25	21	21	23	26	34	23	23%
% ⩾1.00	3	1	1	2	2	4	1	1	1	2	4	3	2%

I. Effectiveness of Rainfall in the Great Basin.

1. The Deficiency Index - Given the latitude, mean monthly and annual precipitation, the Deficiency Index (I_d) may be determined from the nomograms (Illustrations 49 through 50) for any point in the Great Basin. It may also be determined from $I_d = \sqrt{\frac{V_y}{F.01}}$, where V_y = annual rainfall variability, and F.01 = mean monthly frequency of days with measurable precipitation.

a. There are eight characteristic vegetation types in the Great Basin. These can be broken down into vegetation groupings for given ranges of mean annual rainfall and of the Annual Deficiency Index, Tables 10 and 11. These eight types are broken down into nine groupings.

b. The mean annual rainfall and the annual deficiency index can be categorized in terms of the associated types of vegetation as follows:

Mean Annual Rainfall	Annual Deficiency Index
Humid: over 24 inches	Low: under .12
Subhumid: 16-24 inches	Moderately low: .12-.16
Semiarid: 9-16 inches	Moderate: .16-.23
Arid: 4-9 inches	Moderately high: .23-.33
Extremely arid: under 4 inches	High: .33-.45
	Very high: .45-.60
	Extremely high: over .60

TABLE 10

VEGETATION GROUPINGS FOR GIVEN RANGES OF MEAN ANNUAL RAINFALL

Vegetation Types	Rainfall	Climatic Description
Forest: coniferous or mixed	Over 24"	Humid
Forest, aspen parkland, or oak parkland	19-24"	Subhumid
Forest, oak parkland, or pinyon-juniper	16-19"	Subhumid
Pinyon-juniper or sagebrush	12-16"	Semiarid
Pinyon-juniper, sagebrush, or greasewood	9-12"	Semiarid
Sagebrush or greasewood	6- 9"	Arid
Sagebrush, greasewood, or creosote bush	4- 6"	Arid
Greasewood or creosote bush	3- 4"	Extremely Arid
Creosote bush	1- 3"	Extremely Arid

TABLE 11

VEGETATION GROUPINGS FOR GIVEN RANGES OF THE ANNUAL DEFICIENCY INDEX

Vegetation Types	I_d	Description
Forest: coniferous or mixed	.10-.12	Low
Forest or aspen parkland	.12-.13	Moderately Low
Forest, aspen, oak parkland, or sagebrush	.13-.16	Moderately Low
Forest, pinyon-juniper, or sagebrush	.16-.17	Moderate
Forest, pinyon-juniper, sagebrush, or greasewood	.17-.23	Moderate
Pinyon-juniper, sagebrush, or greasewood	.23-.33	Moderately high
Sagebrush or greasewood	.33-.45	High
Greasewood or creosote bush	.45-.60	Very high
Creosote bush	Over .60	Extremely high

2. Climatic Types in the Great Basin - The annual values of rainfall and deficiency are the vital parameters in terms of the effective moisture for vegetation growth. Using these values, five rainfall categories and seven classes of deficiency have been delimited in terms of the associated types of vegetation. Now these separate categories will be grouped into climatic types, representing the mean annual rainfall and the annual deficiency index in combination.

In this classification the annual rainfall will be considered as the primary variable, and the deficiency index (representing the variability and frequency in combination) is considered as the modifying variable. The five categories of precipitation are represented by letters from A (humid) to E (extremely arid). The seven classes of deficiency will be numbered from 1 (low) to 7 (extremely high). Each climatic type can then be represented by a letter and a number illustrating the combination of mean rainfall and the deficiency index. Table 12 illustrates how the climatic type is determined for a sample station (Las Vegas, Nevada). This table shows that Las Vegas has an extremely arid climate with a very high rainfall deficiency. The associated vegetation type is creosote bush, a typical form under these climatic conditions in the southern Great Basin.

TABLE 12

DETERMINATION OF THE CLIMATIC TYPE AT LAS VEGAS, NEVADA
(LATITUDE 36°N)

Parameter	Value
Annual $\overline{R}$ (30-year normal)	3.89"
Annual V_y (Illus. 32)	.600
Mean monthly $F_{.01}$ (average of 12 values, Illus. 34, 35, & 36)	2.00 days
Annual $I_d = \sqrt{.600/2.00}$	.548[a]
Rainfall classification: $\overline{R} < 4"$	E
Deficiency classification: I_d between .45 and .60	6
Climatic type	E 6

[a] The annual I_d may also be determined from Illustration 50, thereby eliminating the need to compute V_y and $F_{.01}$. This produces less precise values of I_d, but for stations in the middle of a given deficiency class (such as Las Vegas), the results are equally good in terms of classification. At stations near the boundary between two classes (for example, $I_d = .45$), the index should be computed from V_y and $F_{.01}$.

Table 13 shows the observed climatic limits of each vegetation type in terms of Annual Rainfall ($\overline{R}$) and the Annual Deficiency Index (I_d).

TABLE 13

DISTRIBUTION OF VEGETATION TYPES FOR EACH CLIMATIC TYPE

Clim. Type	Annual $\bar{R}$	Annual I_d	Vegetation Type							
			CF	MF	AP	OP	PJ	SB	GW	CB
A1	Over 24"	Under .12	1[b]	4	0	0	0	0	0	0
A2	Over 24"	.12-.16	3	0	0	0	0	0	0	0
A3	Over 24"	.16-.23	1	0	0	0	0	0	0	0
B1	16-24"	Under .12	0	0	1	0	0	0	0	0
B2	16-24"	.12-.16	1	1	2	5	0	0	0	0
B3	16-24"	.16-.23	4	3	0	0	2	0	0	0
C2	9-16"	.12-.16	0	0	0	0	0	6	0	0
C3	9-16"	.16-.23	0	0	0	0	13	25	2	0
C4	9-16"	.23-.33	0	0	0	0	6	3	0	0
C5	9-16"	.33-.45	0	0	0	0	1	0	0	0
D3	4- 9"	.16-.23	0	0	0	0	0	3	0	0
D4	4- 9"	.23-.33	0	0	0	0	0	16	11	0
D5	4- 9"	.33-.45	0	0	0	0	0	5	5	0
D6	4- 9"	.45-.60	0	0	0	0	0	1	0	3
D7	4- 9"	Over .60	0	0	0	0	0	0	1	0
E5	Under 4"	.33-.45	0	0	0	0	0	0	2	0
E6	Under 4"	.45-.60	0	0	0	0	0	0	1	3
E7	Under 4"	Over .60	0	0	0	0	0	0	0	1

[a] Vegetation types are coded as follows: CF = coniferous forest, MF = mixed forest, AP = aspen parkland, OP = oak parkland, PJ = pinyon-juniper woodland, SB = sagebrush, GW = greasewood, CB = creosote bush.

[b] Horizontal lines in the vegetation columns indicate the observed climatic limits of each vegetation type. Numbers indicate the number of stations with given climatic type in each vegetation zone.

J. Climatology of the Rainfall Regime.

1. Utilizing an adequate short period of monthly and annual rainfall and the empirical methods and momograms previously explained, a summary of Climatology for any point in the Great Basin can be calculated. Table 14 shows this for Elko, Nevada.

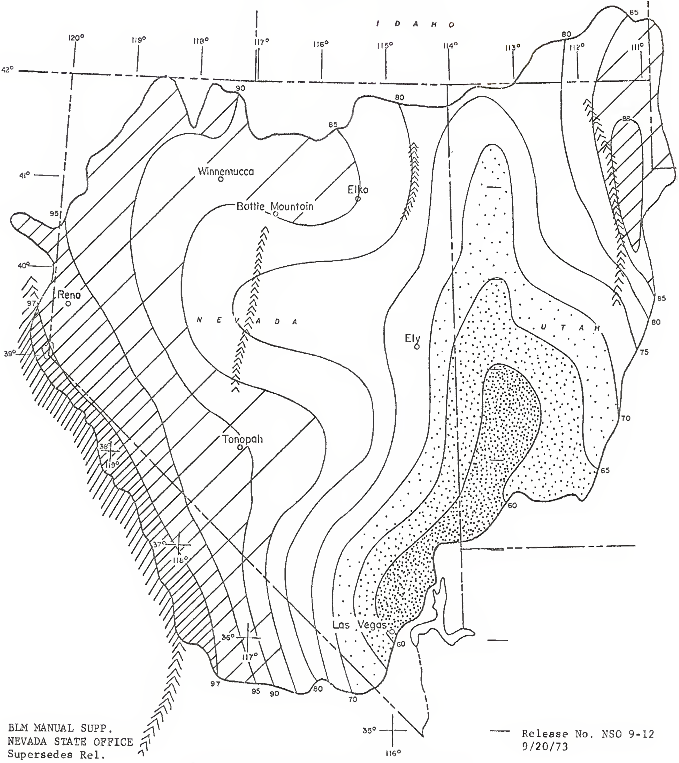
TABLE 14

CLIMATOLOGY OF THE RAINFALL REGIME AT ELKO, NEVADA (LATITUDE 41°N)

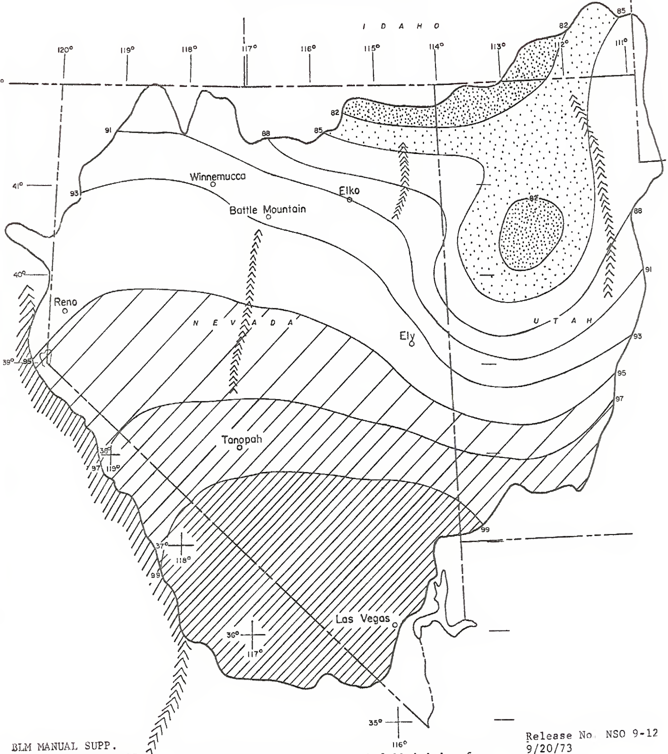
Parameter	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Observed $\bar{R}_i$	1.16	.89	.83	.82	.95	.71	.40	.30	.34	.75	.88	1.01	9.04''
Pacific[a]	.92	.82	.63	.33	.17	.06	.01	.01	.06	.27	.49	.85	4.65''
Gulf[a]	.00	.00	.00	.00	.00	.00	.28	.33	.18	.00	.00	.00	.79''
Continental[a]	.09	.16	.22	.52	.76	.67	.05	.01	.17	.42	.30	.12	3.49''
Computed $\bar{R}_i$	1.04	.92	.88	.85	.96	.73	.35	.36	.41	.71	.79	1.01	9.01''
Dominance	Pacific = 52%, Gulf = 9%, Continental = 39%												K_d = .43
Variability	.63	.66	.71	.72	.76	.82	1.20	1.28	1.24	.81	.70	.64	.24
Standard D.	.73	.59	.59	.59	.72	.58	.48	.38	.42	.61	.62	.65	2.17''
Y_a (passable)	$Y_{.80}$ = 2.1 years, Y_{20} = 2.8 years, average = 2.5 years												Y_a = 3 yr.
Y_b (good)	$Y_{.90}$ = 5.6 years, Y_{10} = 7.0 years, average = 6.3 years												Y_b = 7 yr.
Y_c (close)	$Y_{.95}$ = 17.4 yrs, Y_5 = 12.4 yrs., average = 14.9 years												Y_c = 15 yr.
Days ⩾ .01	7.9	7.9	7.2	6.0	8.2	5.7	2.9	3.3	4.0	5.0	5.0	6.9	70 da.
Days ⩾ .10	4.1	3.8	3.6	2.9	3.8	2.9	1.1	1.5	2.0	2.5	2.8	3.9	35 da.
Days ⩾ .25	1.7	1.4	1.5	1.4	1.3	1.4	.6	.7	.9	1.3	1.7	1.6	16 da.
Days ⩾ .50	.6	.5	.4	.5	.6	.6	.3	.3	.3	.6	.8	.5	6 da.
Days ⩾ 1.00	.2	.1	.1	.1	.2	.2	1/30	1/30	1/20	.1	.2	.2	1½ da.
% ⩾ .25[b]	22	18	21	23	16	25	21	21	23	26	34	23	23%
% ⩾ 1.00[b]	3	1	1	2	2	4	1	1	1	2	4	3	2%
Deficiency	.28	.29	.31	.35	.30	.38	.64	.62	.56	.40	.37	.30	.203
Clim. type	$\bar{R}$ = 9.01'' (C), I_d = .203 (3)												Type = C3

[a] Adjusted to equal months of 30 days.

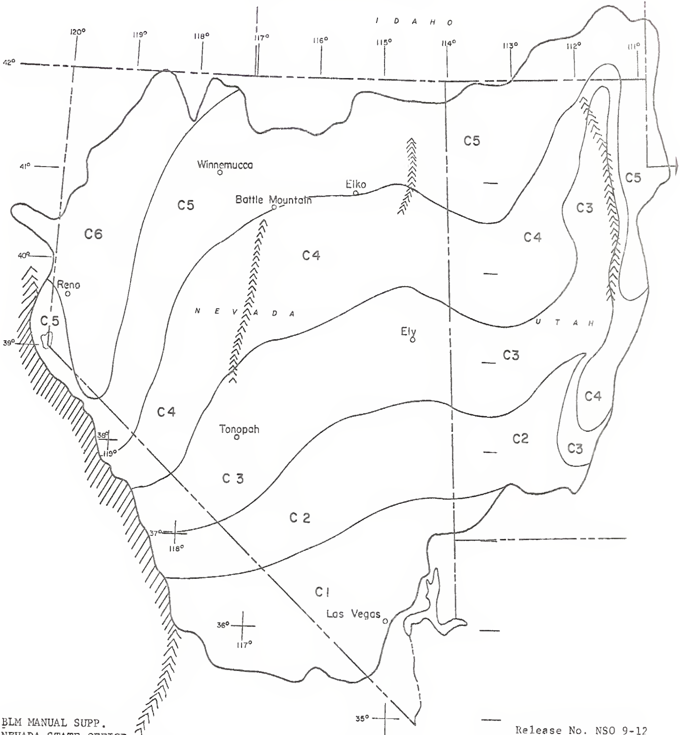
[b] Percentage of rainy days with amounts ⩾ .25 inch and 1.00 inch.



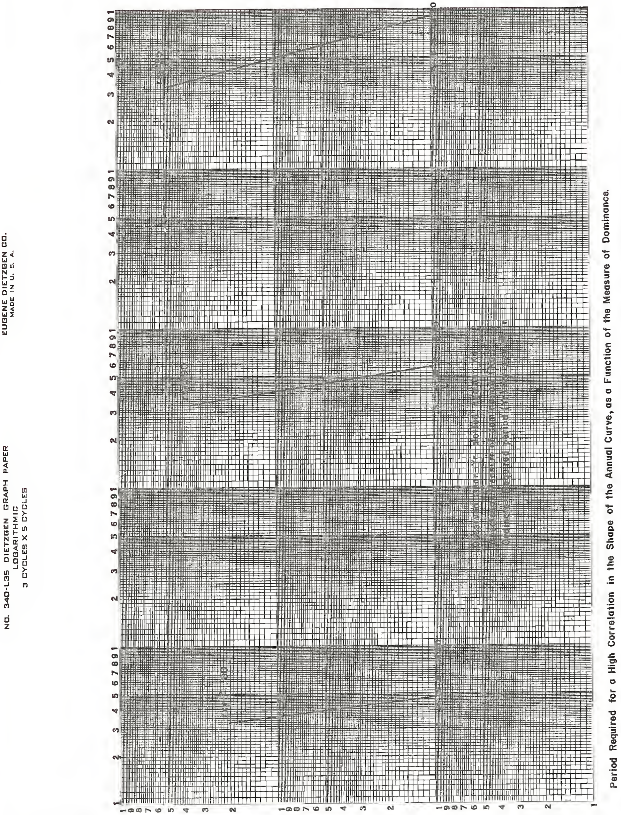
Percentage of Winter Rainfall Arising from the Pacific Component in the Great Basin



Percentage of Midsummer Rainfall Arising from the Gulf Component in the Great Basin

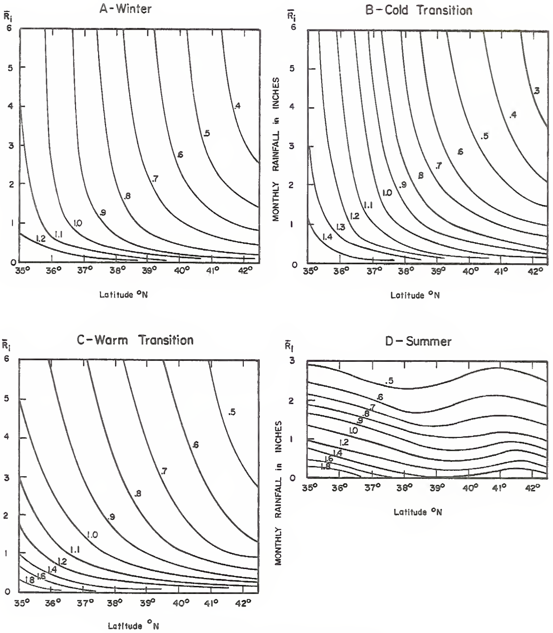


Location of Standard Continental Curves in the Great Basin

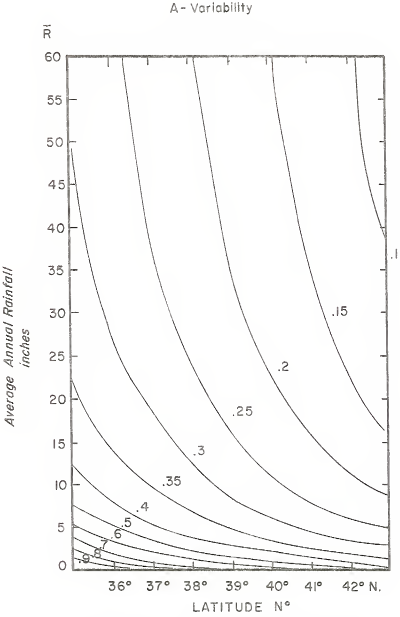


Period Required for a High Correlation in the Shape of the Annual Curve, as a Function of the Measure of Dominance.

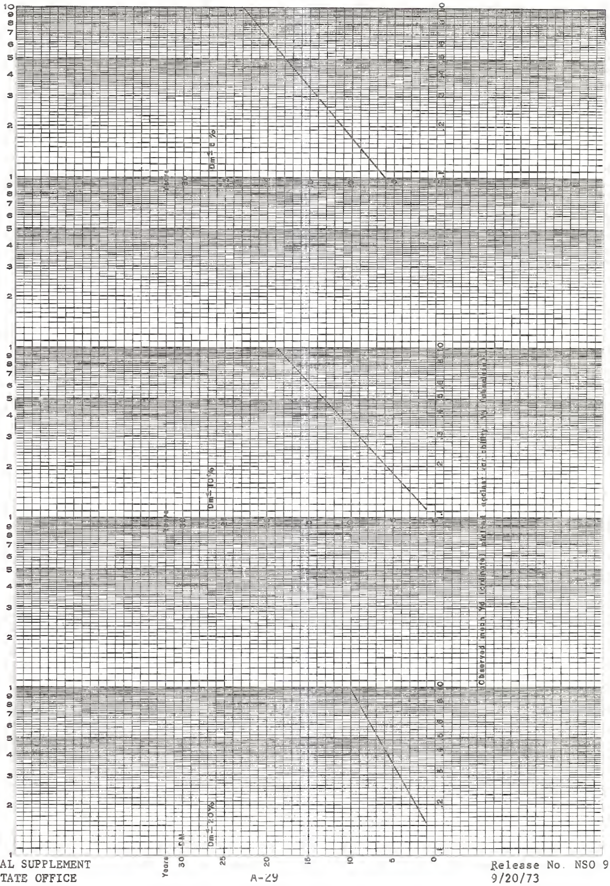
Years of Record Required



Seasonal Rainfall Variability Curves



ILLUS. Annual Rainfall Variability Curves.



Period Required for a Small Percentage Difference in the Mean Annual Rainfall, as a Function of the Annual Rainfall Variability.

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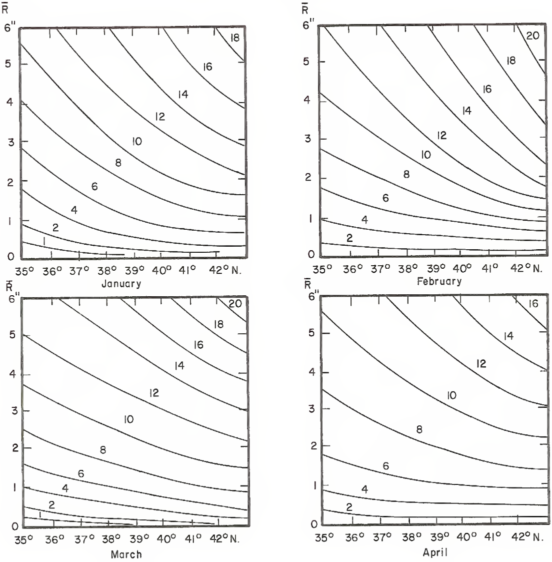
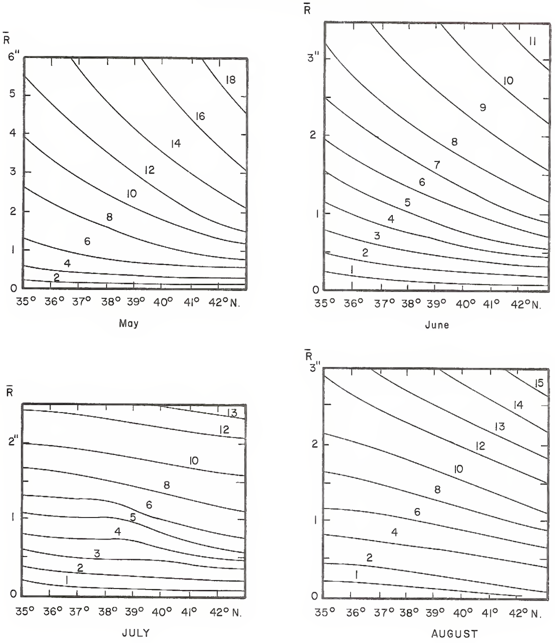


Frequency Curves for Measurable Precipitation, January-April (mean number of days per month 1951-1960).



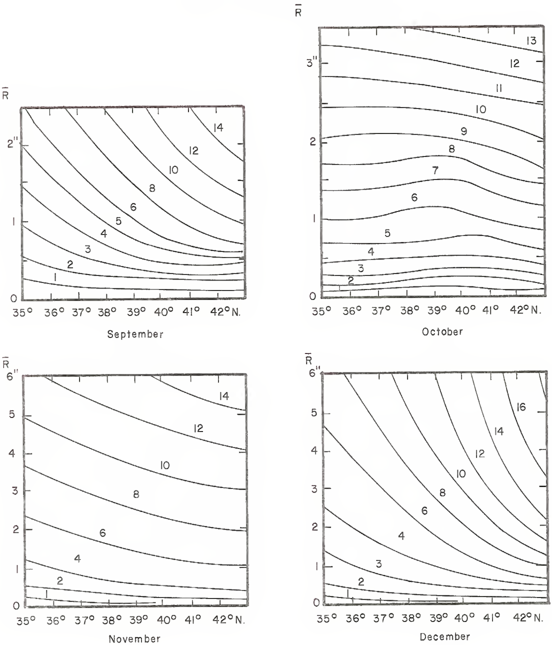
May

June

JULY

AUGUST

Frequency Curves for Measurable Precipitation, May-August.



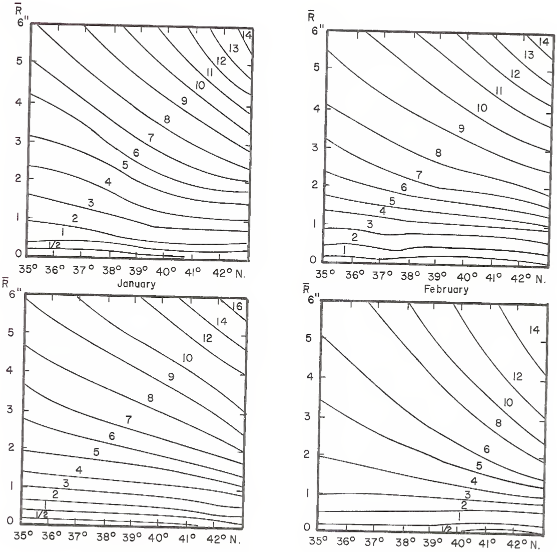
September

October

November

December

Frequency Curves for Meosurable Precipitation, September - December



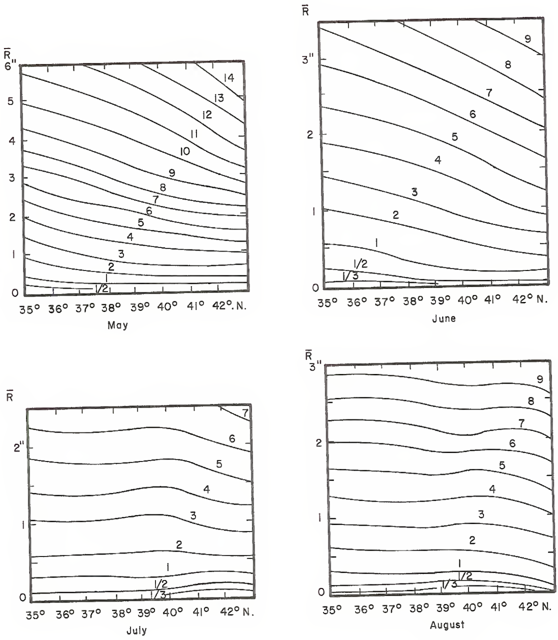
January

February

March

April

Frequency Curves for 24-Hour Precipitation ≥ .10 Inch, January-April.



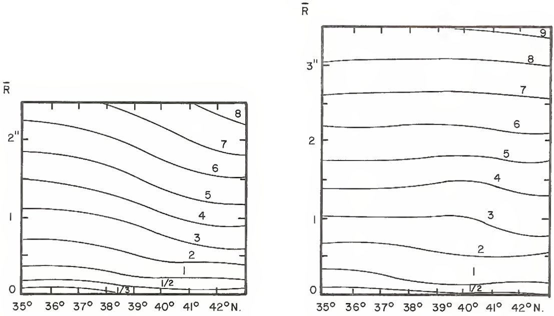
May

June

July

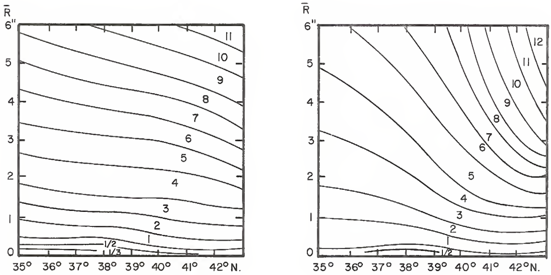
August

Frequency Curves for 24-Hour Precipitation ≥ .10 Inch, May-August.



September

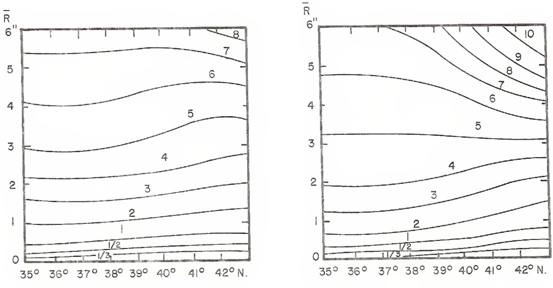
October



November

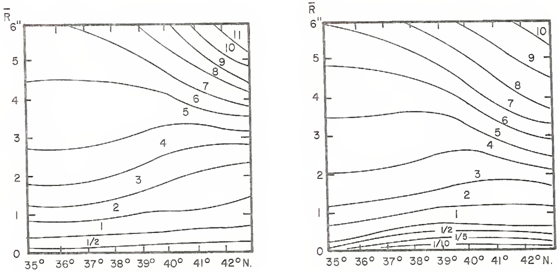
December

Frequency Curves for 24-Hour Precipitation ≥.10 inch, September- December



January

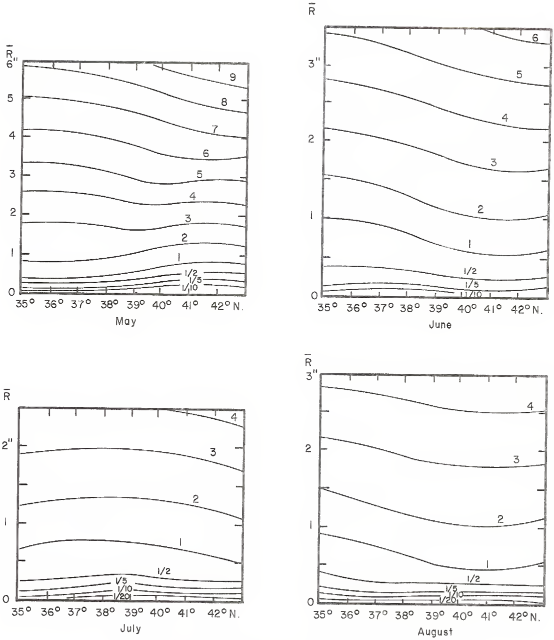
February



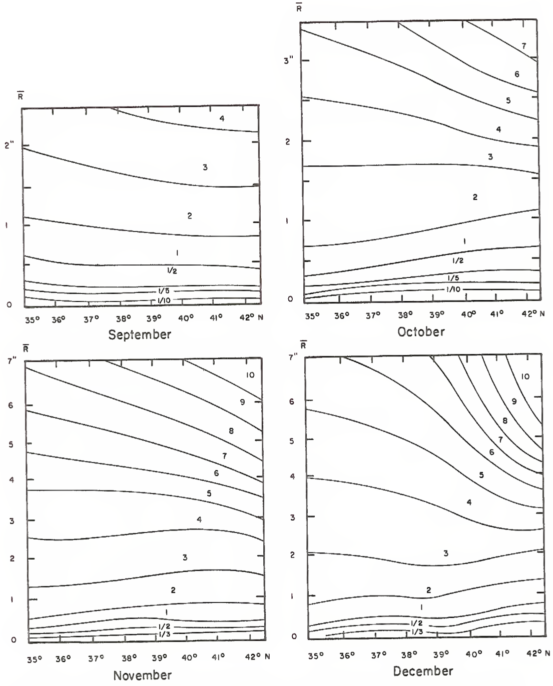
March

April

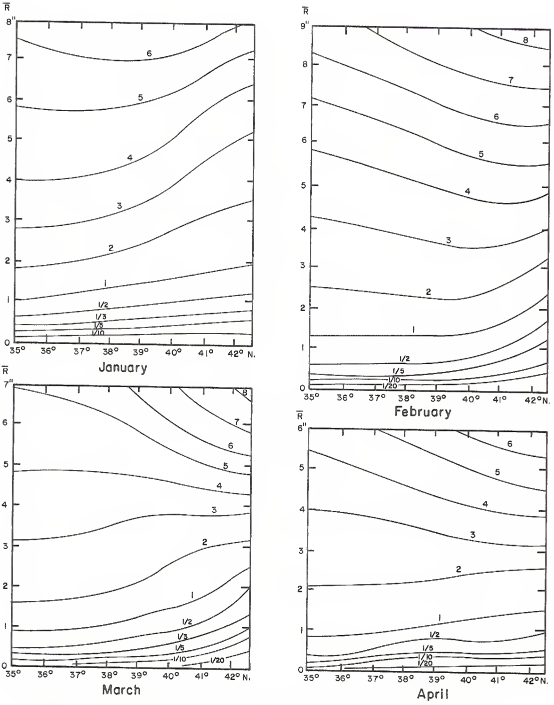
Frequency Curves for 24-Hour Precipitation ≥ .25 Inch, January - April.



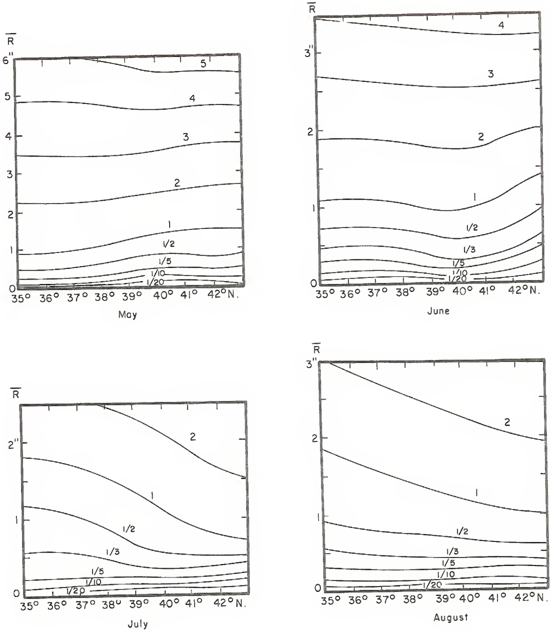
Frequency Curves for 24-Hour Precipitation ≥ .25 Inch, May–August



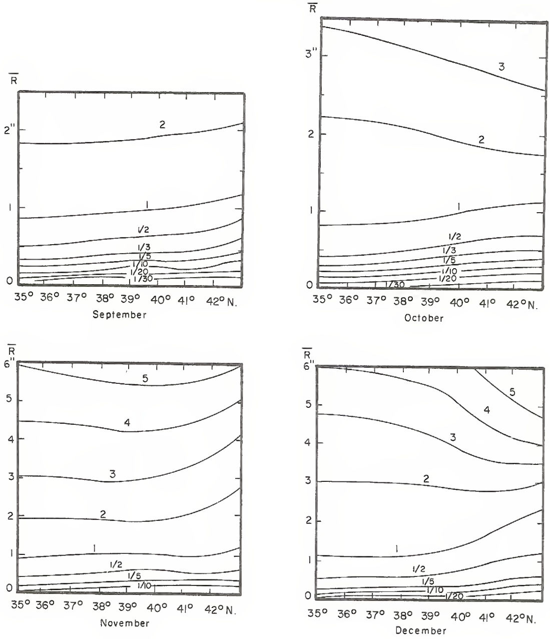
Frequency Curves for 24-Hour Precipitation ≥.25 Inch, September–December.



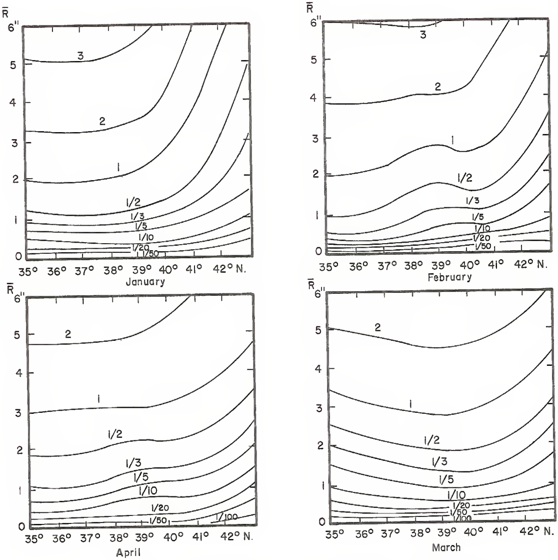
Frequency Curves for 24-Hour Precipitation ≥ .50 Inch, January–April.



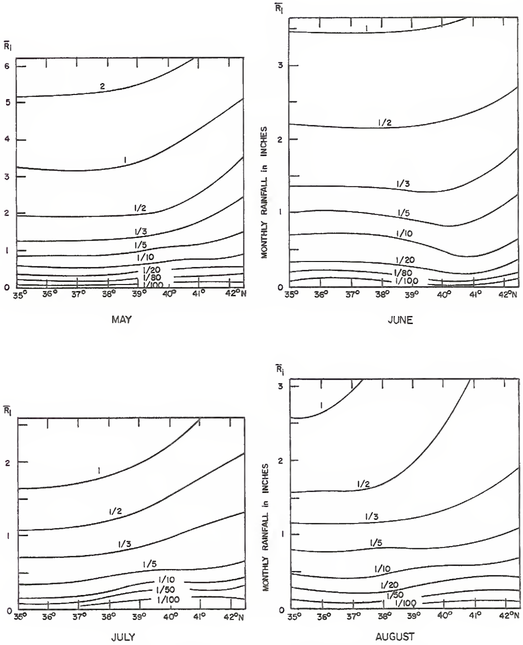
Frequency Curves 24 - Hour Precipitation ≥ .50 Inch, May - August.



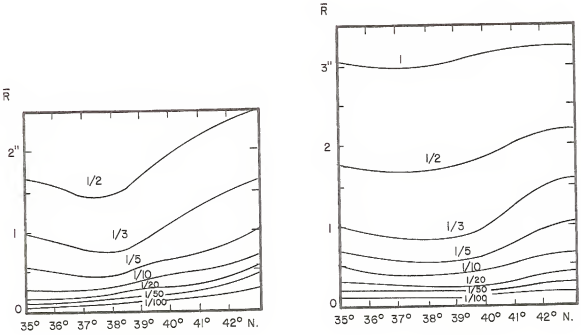
Frequency Curves for 24-Hour Precipitotion ≥ .50 Inch, September - December.



Frequency Curves for 24-Hour Precipitation ⩾ 1.00 Inch, January-April.

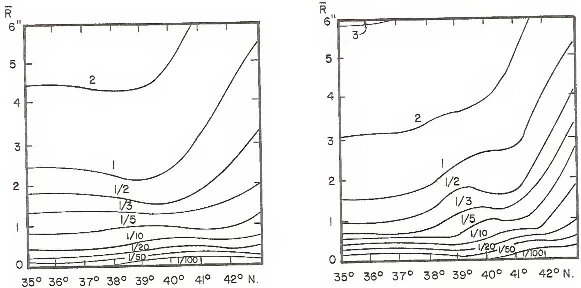


Frequency Curves for 24-Hour Precipitation ≥ 1.00 Inch, May–August



September

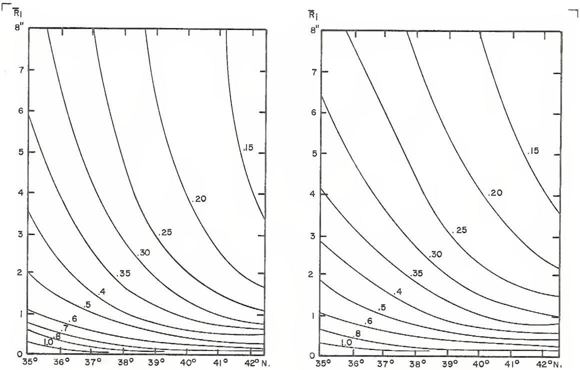
October



November

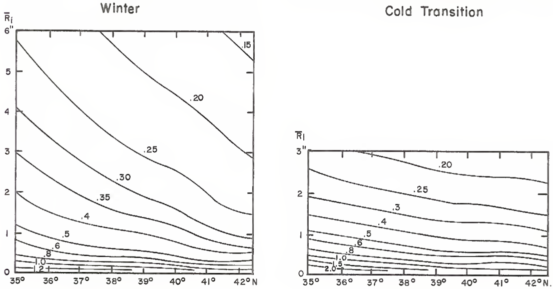
December

Frequency Curved for 24-Hour Precipitation ⩾ 1.00 Inch, September - December.



Winter

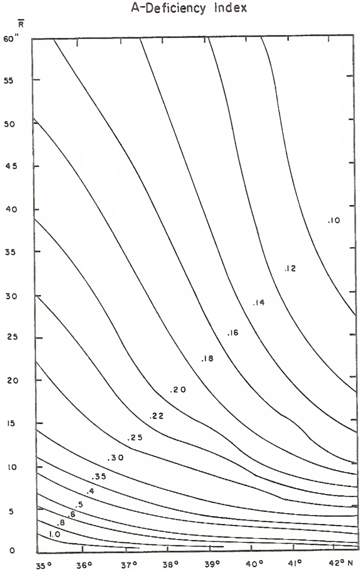
Cold Transition



Warm Transition

Summer

Seasonal Curves of the Rainfall Deficiency Index.



Annual Curves and Frequency Distribution of the Rainfall Deficiency Index.

GLOSSARY

MATHEMATICAL SYMBOLS USED IN THE TEXT

A_g	Expected value of mean rainfall in August.
A_p	Expected value of mean rainfall in January.
C_i	Computed Continental rainfall in month i.
CR_i	"Continental Remainder" obtained by subtracting P_i and G_i from the observed $\overline{R}_i$ (adjusted to equal months of 30 days).
CS_i	Value of standard Continental curve in month i (percentage of annual total Continental rainfall).
f_g	Proportion of midsummer rainfall arising from the Gulf component.
f_p	Proportion of midwinter rainfall arising from the Pacific component.
G_i	Magnitude of Gulf rainfall in month i.
GS_i	Value of the standard Gulf curve in month i (percentage of August Gulf rainfall).
g	Subscript referring to the Gulf component.
I_d	Rainfall deficiency index.
i	Subscript referring to a given calendar month.
K_d	Measure of dominance, determined from the relative importance of each component.
M_g	Magnitude of midsummer Gulf rainfall.
M_p	Magnitude of midwinter Pacific rainfall.
P_a	Adjusted mean monthly Pacific rainfall in a given season.
P_i	Magnitude of Pacific rainfall in month i.
PS_i	Value of the standard Pacific curve in month i. (Percentage of January Pacific rainfall).
p	Subscript referring to the Pacific component.

$\bar{R}_i$	Observed mean rainfall in month i.
$\bar{R}$	Observed mean annual rainfall.
S_i	In the component method: the computed mean monthly rainfall in month i, determined as the sum of three components.
V_y	Coefficient of variation in monthly or annual rainfall.
Y	Term referring to a given length of record (years).
Y_a	Period of record required for passable simulation of the long-term annual march of rainfall.
Y_b	Period required for good simulation of the long-term annual march of rainfall.
Y_c	Period required for close simulation of the long-term annual march of rainfall.
Y_d	Period required for a given small percentage difference between the short-term and long-term annual rainfall.
Y_m	Period required for a given correlation in the shape of the annual curve.
y	Subscript referring to a given length of record (years).

Terms involving Greek letters:

Σ	Term indicating the sum of a set of values.
σ	Standard deviation of monthly or annual rainfall.

UNITED STATES
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Studies and Hydrology

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Form 1220–1 (July 1975)

.5 "PRECIP" - A time-sharing computer program to enter precipitation for The Nevada Watershed Studies.

.51 Introduction

A. Purpose - This manual describes how to use an interactive time-sharing program, "PRECIP", to store rain can data on the BLM Honeywell 66/80 computer system. By using "PRECIP" program, the rain can data can be entered and stored at each district's computer file, and can be accessed and merged for all six districts (12 watersheds) data together in BLM Nevada State Office (NSO). Since the data is entered by hydrologists and/or watershed specialists in each district office, the information will have a higher reliability. The "PRECIP" program will speed up handling of the vast volumes of data to be verified and entered into the computer file in the NSO. As a result current data will be available for watershed study, and the system will be more streamlined and efficient.

B. Objectives - To speed up the data processing for the watershed study. To increase accuracy and reliability of precipitation data records.

C. Authority - Authority for establishing and operating the State Manual System is pursuant to BLM Manual 1221.

D. Responsibility - The Division of Technical Services, Branch of Engineering, is responsible for the training of State and District personnel in the application of this manual. The Division of Resources, Division of Technical Services and District Managers are responsible for carrying out this directive.

.52 Characteristics and Basic Requirements of the "PRECIP" Program

A. Characteristics - The "PRECIP" program is written in a self descriptive method to be operated by a user who does not have an extensive computer background. Some of the characteristics of the PRECIP" program are as follows:

1. The program can be run from all of BLM's teletype terminals.

2. Communication between the user and the computer is conversational.

3. The program performs error checking for input parameters and data format and gives the user the opportunity to correct errors.

4. The program will automatically create and save a permanent file in the user's UMC (User Master Catalog).

B. Basic Requirements

1. User must have an account on the Honeywell 66/80 system and must know how to log-on and log-off of the machine from a terminal.

2. The data and remarks must be in correct input format.

3. User must know how to give and secure file permission for access of the NSO terminal.

.53 Running the "PRECIP" Program on Terminal

A. How to log-on terminal - In order to log-on with the computer from a terminal, user should consult local ADP staff to obtain three items of information:

1. Telephone number (or numbers) to connect the terminal to the Time-Sharing Center.

2. User's ID number.

3. User's password.

After turning the unit on and obtaining a dial tone in the telephone, the user can dial one of the telephone numbers at the Time-Sharing Center. When the connection is made, a high-pitched tone is received and the terminal prints out an indication that the computer is available to be communicated with. With the terminal connected to the Time-Sharing Center, the terminal will ask for a user's identification number. Once the user types in the ID number and pushes the RETURN key (always push RETURN key after a command), the terminal will ask for a password. If the password is valid, the system may print out Denver Service Center (DSC) computer operational related NOOZ (news). The news includes advisory instructions and general information and is self explanatory. After printing out the news, an asterisk (*) follows to indicate its readiness to accept a system command.

B. How to start the "PRECIP" program - After the user logs-on to the terminal, two commands are required to start the program. For the purpose of this Manual the letter "b" is used to represent a blank column in data entry. The user would enter a blank column by using the space bar on the keyboard. The first command that the user has to type is: `OLDbA290/PRECIP`

Entering the above command will give permission to allow your terminal to access the "PRECIP" program. After the terminal responds with an asterisk (*), the second command is: `FRN`

Once the user enters FRN (FORTRAN Run Noheading), the user can reply to the terminal to any question or instruction following an equal sign (=). If no reply (null response) is intended by the user, push RETURN key.

C. Parameters to be entered - District code, watershed code, date in computer file, total rain cans, rain can data and permanent (PERM) file name are required to be entered while the user is interactive with the "PRECIP" program. The rain can data includes rain can number, visit date, precipitation amount (in hundredths of inches), and remarks. The parameter, format, example and their corresponding entries for the computer are listed in Illustation 1. Illustration 2 gives examples of data entry for terminal input, and Illustration 3 lists codes for computer entry in the six districts and twelve watersheds. To assign PERM file name for file storage, user should read the section F. on "How to assign PERM file name" for explanation.

D. Format used - The format statement contains information which is used by the compiler in converting data from the form in which they appear as input into the form which they are stored in the computer's memory. Three formats*, alphameric (A), integer (I), and real (F), are used in "PRECIP" program.

The "A" format consists of alphameric characters, namely: letters A through Z, and numbers 0 through 9. If "w" indicates width of the format field then "Aw" specification will cause "w" alphameric spaces to be read into or written from an ordinary name or an array name. For instance, district code has an "A2" format which allows up to two alphameric spaces for the input of district code.

The "I" format is used to express a number without decimal point, and Iw is used to indicate the width of integer field. As an example, an "I1" format for watershed code allows one space for integer input. The "F" format is used to enter a real number with decimal point, for example Fw.d format indicates "d" number of digits to the right of the decimal point in "w" width of a real number. The only "F" format in "PRECIP" program is F5.2 which means 2 digits to the right of the decimal point in 5 spaces of a real number.

---

* For complete explanation, user should read standard computer textbook.

E. How to enter data - After printing out instructions, the program will list all district codes and district names. For example, Winnemucca District has a "N2" code, and the "N2" code has to be typed in columns 1 and 2. Once the user types in "N2" and pushes the RETURN key, the terminal will repeat the user's answer in different format, and will give the user a chance to correct wrong data by asking "REENTER DATA? IF YES; 1, IF NO; PUSH RETURN".

The next three parameters to be entered are watershed code, date in computer file (today's date), and total rain cans. Their code, format, example, computer entries, and column are listed in Illustration 1, Illustration 2, and Illustration 3. There is only one chance to re-enter data after entering all three parameters.

The data for each rain can includes rain can #, visit date, precipitation amount (in inches) and remarks. Each set of rain can data has to be entered as one line. Before the program writes each set of rain can data into the output file, the user is allowed a chance to re-enter data for each rain can data.

The last parameter to be entered is the PERM file name. To assign a PERM file name, the user should read the section F. of these instructions on "How to assign PERM file name." The user is also allowed a chance to re-enter the PERM file name.

F. How to assign PERM file name - To identify the rain can data file for various visit dates of all 12 watersheds, PERM file names are designated by assigning 8 alphameric characters. These 8 alphameric characters identify the rain can, district and watershed codes (Illustration 3), month of data on computer file, and number of files in that month. An example has been given in Appendix 1.

The first two alphameric characters are RC which means Rain Can, and stay the same for all files. The third and fourth alphameric characters indicate the district code, and the fifth alphameric character represents the watershed code. For example, N42 can be used to assign N4 district (Ely District) and its number 2 watershed code (Steptoe Watershed). The sixth and seventh alphameric characters are used to indicate the month of that data on the computer file, such as 01, 02, 03, ---, and 12 are used to indicate January, February, March, ---, and December, respectively. The last alphameric character is used to state the number of the file in that month.

G. How to grant permission for NSO - Access Function* is used to grant permission for the Engineering Branch to access and to store your rain can data file in one of NSO's UMC (A290). To start the access function, user should type in: ACCESS.

After typing in ACCESS, there are 12 questions that the program will ask the user to respond to. User should only answer the first, third and eighth questions, and should give a null response (by pushing RETURN key) to the rest of nine questions. An example is also given in EXAMPLE OF A "PRECIP" RUN in Appendix 1.

The first question that the program will ask is "FUNCTION?". The user should respond, MF. Question number three is "FILE TO BE MODIFIED?" and the user should enter his PERM file name, such as RCN51051. Question number eight is "SPECIFIC PERMISSIONS?", and the user should answer, W/A290/. The first and eighth responses are to stay the same for all users, however, the response to question three should be changed from user to user.

H. How to log-off - An Available File Table (AFT) is used to hold a finite number of file names which are entered in the AFT when files are initially accessed. Because the AFT is of finite length, AFT can become full of files. Also, files can not be accessed from other channels, when files are held "BUSY" in the AFT of the user's channel.

To avoid full files and "BUSY" responses, the Remove Clear files (REMC) command can be used to remove all permanent and temporary files from the AFT of current channel. Hence, REMC command is recommended before the log-off command: REMC

To terminate the user's connection with the Time-Sharing System and disconnect the terminal, the BYE command can be entered: BYE

.54 Example of a "PRECIP" Run - Since an example run is an easier way for user to learn to run the "PRECIP" program, an example is listed in Appendix 1. The user's responses are underlined, and the remarks are typed within parentheses. Appendix 2 lists the fortran statements of the "PRECIP" program.

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* For more detail, user should read "Software - TSS general information.

Format, example and correspondent entries in computer for parameter to be entered in "PRECIP" program.

Parameters	Format	Example*	Computer Entries*	Columns
District code**	A2	Winnemucca	N2	1-2
Watershed code**	I1	Crowley	1	1
Date data in computer file (today's date)	I6	May 8, 1981	810508	1-6
Total rain cans	I2	5 cans	b5***	1-2
Rain can data:				
1. Rain can #	I2	Can #1	1	1-2
2. Visit date	I6	May 6, 1981	810506	3-8
3. Precipitation amount	F5.2	4.25	b4.25	9-13
4. Remarks	A20	Was tilted	WAS TILTED	14-33
PERM file name****	A8	Rain Can, N2 district, #1 watershed, May (05), #1 file,	RCN21051	1-8

*Computer entries of example are coded in Illustration 2

**For complete listing of district codes and watershed code, see Illustration 3.

***Character "b" is used to indicate a blank space.

****To assign PERM file, user should read section on "How to assign PERM file."

UNITED STATES
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FORTRAN

CODING
FORM

PO 840 189

SYSTEM

PROGRAM

PROGRAMMER

DATE

SHEET ______
OF ______

STATEMENT NUMBER | CONT | FORTRAN STATEMENT | IDENTIFICATION

```
N6
2
810601
07
01810527 5.45
02810527 4.15 CAN WAS TILTED
04810527 5.75
06810527 5.25
08810528 6.25
11810528 0.00 INACCESSIBLE
15810528 5.95
RCN62061
```

DSC-1765-29 (Aug 73)

Code number of six district and twelve watersheds.

District Name	Watershed Name	Code for Computer Engry
Elko		N1
	Rock	1
	Crane	2
Winnemucca		N2
	Crowley	1
	Cow	2
Carson City		N3
	Eastgate	1
	Churchill	2
Ely		N4
	Duckwater	1
	Steptoe	2
Las Vegas		N5
	Pine	1
	Mathews	2
Battle Mountain		N6
	Mill	1
	Coils	2

- Example of a "PRECIP" Run

```
BLM COMPUTER CENTER 06/01/81 AT 16.880  CHANNEL 3210 1St

USER ID  A199 (USER ID)
PASSWORD
[redacted]  (PASSWORD is striken over for security)


NOO7 updated Monday, June 1, 1981. (News from DSC Computer Center)

Read on for:

* Disk Space.

 *** A moratorium on the allocation of disk space was put into  effect
     on  May  6,  1981.  This  action  was required  due to past over-
     allocation  of disk  space on the H66/80 system.  For more infor-
     mation, DISPLAY the file A101/L/DISK.M .  (M. Chafin 5-7-81)


*LINELENGTH 140
*SYSTEM FORTRAN (End of news and instructions)
*OLD A290/PRECIP (User starts to access "PRECIP" program at UMC A290)
*FRN (Fortran Run Noheading)
RAIN CAN RECORD FOR NEVADA STATE BLM WATERSHED STUDY
 ENTER DISTRICT CODE; THE CODES ARE;
 N1=ELKO                N2=WINNEMUCCA          N3=CARSON CITY
 N4=ELY                 N5=LAS VEGAS           N6=BATTLE MOUNTAIN
 TYPE IN DISTRICT CODE. FOR EXAMPLE, WINNEMUCCA DISTRICT
 SHOULD TYPE IN N2
=M@N3  (User needs only to type in N3.  @ is used to erase M)
DISTRICT NAME; CARSON CITY
DISTRICT CODE; N3          .
REENTER DATA? IF YES;1, IF NO;PUSH RETURN
=1  (To reenter data)
 ENTER DISTRICT CODE; THE CODES ARE;
 N1=ELKO                N2=WINNEMUCCA          N3=CARSON CITY
 N4=ELY                 N5=LAS VEGAS           N6=BATTLE MOUNTAIN
 TYPE IN DISTRICT CODE. FOR EXAMPLE, WINNEMUCCA DISTRICT
 SHOULD TYPE IN N2
=N6  (Should be N6 for Battle Mountain District)
DISTRICT NAME; BATTLE MOUNTAIN
DISTRICT CODE; N6
```

```
REENTER DATA? IF YES;1, IF NO;PUSH RETURN
=  (Null response.  Push Return)
 ENTER WATERSHED CODE; THE CODES ARE;
 CODE 1 FOR;CRANE      CROWLEY    EASTGATE  DUCKWATER PINE       MILL
 CODE 2 FOR;ROCK       COW        CHURCHILL STEPTOE   MATHEWS    COILS
 IF COW WATERSHED, SHOULD TYPE IN 2
=2  (Code #2 for Coils Watershed of Battle Mountain District)
CODE #2 FOR COILS      WATERSHED
DATE OF RECORD ENTERED
 ENTER TODAY'S DATE: IF MAY 21, 1981, TYPE IN 810521
=810601   (Record in computer file June 1, 1981)
RECORD IN FILE;  6- 1, 1981
 ENTER TOTAL CANS OBSERVED
 IF 5 CANS, SHOULD TYPE IN 05
=07  (7 rain cans observed)
COILS         WATERSHED HAS  7 CAN DATA IN THIS VISIST
 IF WANT TO REENTER DATA FOR;
   WATERSHED CODE,DATE,AND TOTAL RAIN CANS
REENTER DATA? IF YES;1, IF NO;PUSH RETURN
=    (No mistake)
 ENTER; 1)RAIN CAN #, 2)DATE, 3)RAIN(IN INCHES), 4)-REMARKS
 IF CAN #1, AT 81-05-18, HAD 4.25 INCHES,AND WAS TILTED
 SHOULD TYPE IN 01810518 4.25 WAS TILTED
 ALLOW UP TO 20 SPACES TO ENTER REMARKS
 IF CAN #3, AT 81-05-18, HAD 11.50 INCHES, AND NO REMARK
 SHOULD TYPE IN 0381051811.50
=01810527 5.45   (Rain can data #1)
              CAN #       DATE       AMOUNT      REMARKS
                   1     810527        5.45
REENTER DATA? IF YES;1, IF NO;PUSH RETURN
=
NEXT CAN ?
=0281052704.15 CAN WAS TILTED  (Rain can data #2)
              CAN #       DATE       AMOUNT      REMARKS
                   2     810527        4.15    CAN WAS TILTED
REENTER DATA? IF YES;1, IF NO;PUSH RETURN
=
NEXT CAN ?
=04810527 5.75  (Rain can data #4)
              CAN #       DATE       AMOUNT      REMARKS
                   4     810527        5.75
REENTER DATA? IF YES;1, IF NO;PUSH RETURN
=
NEXT CAN ?
=06810527 5.25   (Rain can data #6)
              CAN #       DATE       AMOUNT      REMARKS
                   6     810527        5.25
REENTER DATA? IF YES;1, IF NO;PUSH RETURN
=
NEXT CAN ?
```

```
=08810528 6.25  (Rain Can Data #8)
           CAN #        DATE     AMOUNT      REMARKS
               8     810528       6.25
REENTER DATA? IF YES;1, IF NO;PUSH RETURN
=
NEXT CAN ?
=11810528 0.00 INACCESSIBLE  (Rain Can Data #11)
           CAN #        DATE     AMOUNT      REMARKS
              11     810528       0.      INACCESSIBLE
REENTER DATA? IF YES;1, IF NO;PUSH RETURN
=
NEXT CAN ?
=15810528 5.95  (Rain Can Data #15)
           CAN #        DATE     AMOUNT      REMARKS
              15     810528       5.95
REENTER DATA? IF YES;1, IF NO;PUSH RETURN
= (Null Response)
ENTER NAME OF THE PERM FILE YOU WANT
 THIS DATA WRITTEN ONTO
 RAIN CAN AT N4 DISTRICT, #1 WATERSHED, MAY'S(05) #1 FILE
 SHOULD TYPE IN RCN41051
=RCN62061 (Rain Can, N6 District, #2 Watershed, June's #1 File)
REENTER DATA? IF YES;1, IF NO;PUSH RETURN
= (Null Response)
COPIED 2 LLINKS

*LIST RCN62061  (List of RCN62061 File)

 RAIN CAN RECORD FOR NEVADA STATE BLM WATERSHED STUDY
 DISTRICT NAME; BATTLE MOUNTAIN
 DISTRICT CODE; N6
 CODE #2 FOR COILS     WATERSHED
 RECORD IN FILE;  6- 1, 1981
 TOTAL RAIN CAN = 7 CANS
          ---------I---------I---------I----------------------I
          CAN NUMBER       DATE    AMOUNT          REMARKS
                                    (IN.)
          ---------I---------I---------I----------------------I
                  1   810527      5.45
          ---------I---------I---------I----------------------I
                  2   810527      4.15  CAN WAS TILTED
          ---------I---------I---------I----------------------I
                  4   810527      5.75
          ---------I---------I---------I----------------------I
                  6   810527      5.25
          ---------I---------I---------I----------------------I
                  8   810528      6.25
          ---------I---------I---------I----------------------I
```

```
                11     810528       0.      INACCESSIBLE
       ---------I---------I---------I----------------------I
                15     810528       5.95
       ---------I---------I---------I----------------------I

*ACCESS (Start to grant permission for NSO to access RCN62061)

 FUNCTION? MF (Modify File)
     CATALOG STRUCTURE TO WORKING LEVEL?  (Null Response)

     FILE TO BE MODIFIED? RCN62061 (File RCN62061)
     NEW NAME? (Null Response)
     NEW MAX SIZE IN LLINKS?  (Null Response)
NEW PASSWORD?
@X8GW#MWE@VR##  (Null Response)
     GENERAL PERMISSIONS? (Null Resoonse)
     SPECIFIC PERMISSIONS? W/A290/ (To grant permission to A290)
MORE?  (Null Response)
     SPECIFIC PERMISSIONS? (Null Response)

     FILE TO BE MODIFIED?  (Null Response)

 FUNCTION? (Null Response)
*REMC (Remove Clearfiles)
*BYE  (Log-Off)
**cost:  $    0.32 to date:  $26731.88= 27%
**on at 17.319 - off at 17.356 on  06/01/81
```

FORTRAN Source Listing of "PRECIP" Program

```
*LIST PRECIP

C--'PRECIP' PROGRAM - JUNE, 1981
C--
C--ENGINEERING BRANCH, TECHNICAL SERVICE DIVISION,
C--NEVADA STATE BLM OFFICE(NSO)
C--FOR ASSISTANCE: CALL H.M. JOUNG(FTS,470-5275)
C--
C--DEFINITIONS OF VARIABLES IN READ STATEMENTS:
C--ND   TO ASSIGN DISTRICT CODE. SIX DISTRICT CODES ARE USED FOR NSO.
C--MISS   TO GRANT CHANCE FOR DATA REENTER IN CASE OF MISTAKE.
C--        COMMANDS FOR MISS ARE SELF EXPLAINED BY' REENTER DATA?
C--        IF YES;1, IF NO;PUSH RETURN KEY'.
C--NW   TO ASSIGN WATERSHED CODE.
C--MY,MM,MD   TO ENTER DATE RAIN CAN DATA IN COMPUTER FILE.  MY=YEAR,
C--             MM=MONTH, MD=DAY. (OR, TODAY'S DATE)
C--NCAN   TOTAL NUMBER OF RAIN CAN RECORDED
C--ICAN   NUMBER OF RAIN CAN
C--IDAY   DATE OF FIELD VISIT(YEAR-MONTH-DAY).
C--AMT   PRECIPATION AMOUNT IN INCHES.
C--REM   REMARKS OF THE RAIN CAN RECORD.
C--FILE  PERM FILE NAME.
10 DIMENSION DN(6),WN(12)
20 CHARACTER *10 WN
30 CHARACTER *16 DN
40 CHARACTER *30 REM
50 CHARACTER *80 FILE,FMT
60 DATA(DN(N),N=1,6)/4HELKO,10HWINNEMUCCA,11HCARSON CITY,
70& 3HELY,9HLAS VEGAS,15HBATTLE MOUNTAIN/
80 DATA(WN(M),M=1,12)/5HCRANE,4HROCK,7HCROWLEY,3HCOW,
90& 8HEASTGATE,9HCHURCHILL,9HDUCKWATER,7HSTEPTOE,
100& 4HPINE,7HMATHEWS,4HMILL,5HCOILS/
110 CALL CREATE(1,10000,0,ISTAT)
120 22 FORMAT(' RAIN CAN RECORD FOR NEVADA STATE BLM WATERSHED STUDY')
130 PRINT 22,
140 WRITE(1,22)
150 207 FORMAT(15X,I2,4X,I6,4X,F6.2,2X,A30)
160 200 FORMAT(8X,'CAN NUMBER',6X,'DATE',4X,'AMOUNT',
170& 10X,'REMARKS')      ,
180 202 FORMAT(33X,'(IN.)')
190 203 FORMAT(12X,'CAN #',6X,'DATE    AMOUNT     REMARKS')
200 204 FORMAT(I2,I6,F5.2,A30)
```

```
210 205 FORMAT(8X,3(9(1H-),1HI),22(1H-),1HI)
220 206 FORMAT(' NEXT CAN ?')
230 42 FORMAT(' DATE OF RECORD ENTERED')
240 44 FORMAT(3I2)
250 55 FORMAT(' TOTAL RAIN CAN =',I2,' CANS')
260 115 FORMAT(1X,I1)
270 117 FORMAT(' REENTER DATA? IF YES;1, IF NO;PUSH RETURN')
280 118 FORMAT(' DISTRICT NAME; ',A16,/,' DISTRICT CODE; N',I1)
290 119 FORMAT(' RAIN CAN DATA FOR WATERSHED STUDY')
300 125 FORMAT(I2)
310 127 FORMAT(' CODE #',I1,' FOR ',A10,'WATERSHED')
320 316 FORMAT(A10,' WATERSHED HAS ',I2,' CAN DATA IN THIS VISIT')
330 317 FORMAT(2X,'IF WANT TO REENTER DATA FOR;')
340 318 FORMAT(4X,'WATERSHED CODE,DATE.AND TOTAL RAIN CANS')
350 327 FORMAT(' ENTER;1)RAIN CAN #, 2)DATE, 3)RAIN(INCHES) 4)REMARKS')
360 45 FORMAT(' RECORD IN FILE; ',I2,'-',I2,', 19',I2)
370 107 PRINT,' ENTER DISTRICT CODE; THE CODES ARE;'
380 PRINT,' N1=',DN(1),' N2=',DN(2),' N3=',DN(3)
390 PRINT,' N4=',DN(4),' N5=',DN(5),' N6=',DN(6)
400 PRINT,' TYPE IN DISTRICT CODE. FOR EXAMPLE, WINNEMUCCA DISTRICT'
410 PRINT,' SHOULD TYPE IN N2'
420 READ 115,ND
430 N=ND
440 PRINT 118,DN(N),ND
450 PRINT 117,
460 READ, MISS
470 IF(MISS .EQ. 1) GO TO 107
480 WRITE(1,118)DN(N),ND
490 137 PRINT,' ENTER WATERSHED CODE; THE CODES ARE;'
500 PRINT,' CODE 1 FOR;',WN(1),WN(3),WN(5),WN(7),WN(9),WN(11)
510 PRINT,' CODE 2 FOR;',WN(2),WN(4),WN(6),WN(8),WN(10),WN(12)
520 PRINT,' IF COW WATERSHED, SHOULD TYPE IN 2'
530 READ,NW
540 M=ND*2
550 IF(NW .EQ. 1) M=M-1
560 PRINT127,NW,WN(M)
570 PRINT 42
580 PRINT,' ENTER TODAY'S DATE; IF MAY 21, 1981, TYPE IN 810521'
590 READ 44,MY,MM,MD
600 PRINT 45,MM,MD,MY
610 PRINT,' ENTER TOTAL CANS OBSERVED'
620 PRINT,' IF 5 CANS, SHOULD TYPE IN 05'
630 READ,NCAN
640 PRINT 316,WN(M),NCAN
650 PRINT 317,
660 PRINT 318,
670 PRINT 117,
680 READ, MISS
690 IF(MISS .EQ. 1) GO TO 137
700 WRITE(1,127)NW,WN(M)
710 WRITE(1,45)MM,MD,MY
720 WRITE(1,55)NCAN
```

```
730 PRINT," ENTER: 1)RAIN CAN #, 2)DATE, 3)RAIN(IN INCHES), 4) REMARKS"
740 PRINT." IF CAN #1, AT 81-05-18, HAD 4.25 INCHES,AND WAS TILTED"
750 PRINT." SHOULD TYPE IN 01810518 4.25 WAS TILTED"
760 PRINT, " ALLOW UP TO 20 SPACES TO ENTER REMARKS"
770 PRINT," IF CAN #3, AT 81-05-18, HAD 11.50 INCHES, AND NO REMARK"
780 PRINT," SHOULD TYPE IN 0381051811.50"
790 WRITE(1,205)
800 WRITE(1,200)
810 WRITE(1,202)
820 WRITE(1,205)
830 MISS=0
840 DO 100 I=1,NCAN
850 IF(I .NE. 1) PRINT 206,
860 332 IF(MISS .NE. 1) GO TO 333
870 PRINT 327,
880 333 READ 204,ICAN,IDAY,AMT,REM
890 PRINT 203,
900 PRINT 207,ICAN,IDAY,AMT,REM
910 PRINT 117,
920 READ, MISS
930 IF(MISS .EQ. 1) GO TO 332
940 WRITE(1,207)ICAN,IDAY,AMT,REM
950 WRITE(1,205)
960 MISS=0
970 100 CONTINUE
980 REWIND 1
990 347 PRINT,"ENTER NAME OF THE PERM FILE YOU WANT"
1000 PRINT," THIS DATA WRITTEN ONTO"
1010 PRINT," RAIN CAN AT N4 DISTRICT, #1 WATERSHED, MAY'S(05) #1 FILE"
1020 PRINT," SHOULD TYPE IN RCN41051"
1030 READ, FILE
1040 PRINT 117,
1050 READ, MISS
1060 IF(MISS .EQ. 1) GO TO 347
1070 ENCODE(FMT,40)"CPY 01;",FILE,"\"
1080 40 FORMAT(A7,A72,A1)
1090 CALL CALLSS(FMT)
1100 CALL DETACH(1,ISTAT,)
1110 STOP
1120 END
```

Appendix 4

Estimated Annual Precipitation of Proposed Reservoirs in Winnemucca District, Nevada

Proposed Reservoirs Number	Location		Elevation	Estimated Annual Precipitation
	Latitude(°N), X_1	Longitude(°W), X_2	(feet), X_3	(in/year), Y
1	41.92	118.02	5,480	11.52*
2	41.85	118.03	5,820	12.06
3	41.90	118.03	5,900	12.19
4	41.92	118.08	5,880	12.16
5	41.90	118.07	6,000	12.35
6	41.87	118.03	6,560	13.24
7	41.87	118.08	6,550	13.22
8	41.88	117.82	5,000	10.75
9	41.88	117.93	5,050	10.83
10	41.80	117.83	4,600	10.11
11	41.80	117.93	5,100	10.91
12	41.78	117.88	5,000	10.75
13	41.77	117.90	4,900	10.59
14	41.73	117.88	4,300	9.63
15	41.35	117.08	5,150	11.38**
16	41.37	117.07	5,280	11.78
17	41.45	116.97	5,440	12.47
18	41.45	116.98	5,500	12.63
19	41.45	116.88	5,300	12.14
20	41.43	116.85	5,580	12.86
21	41.42	116.85	5,700	13.16
22	41.40	116.87	5,900	13.64
23	41.38	116.87	5,820	13.37

* Estimated for reservoirs 1 through 14; from multiple regression of NWS Data; $Y=2.7471 + 0.0016\ (X_3)$, $r^2=0.9580$. F=167.2206, DF=1/17.

**Estimated for reservoir 15 through 23; from multiple regression of NOAA Data; $Y=-51.4555 + 2.6001^3(X_1)-0.5004\ (X_2)+0.0027(X_3)$, $r^2=0.9307$, F=25.9003, DF=3/16.

Appendix 5
User's Manual for AQUATANK

A. Table of Input Data for AQUATANK:

```
    NORTH FORK   .88  .90     5  24
0  41  36 117   9 5400
1.52 1.16 1.08 1.11 1.58 1.47 0.29 0.39 0.47 0.89 1.23 1.47
 3    2    2
 CATTLE  125   15    4    3
 HORSES   25   15    1   12
```

B. Input Parameters

Line 1: ALO, FP, FG, ACC, AST.
Line 2: ICAN, LATA, LATB, LONA, LONB, LEV.
LIne 3: PM (I), I = 1, 12.
Line 4: KSD, KTK, LWN.
Line 5*: ANM(N), NAN(N), NWC(N), MSU(N), NMU(N).

C. Input Format

Line 1: 2X, A16, 2F5.2, I5, A4
Line 2: 5I4, I5
Line 3: 2X, 12F5.2
Line 4: 3I5
Line 5: A10, 4I5

D. Explanation of Parameters

Line 1, ALO:	Site name.
Line 1-2, FP:	Percentage (expressed as decimal) of winter precipitation arising from the Pacific Component in the Great Basin.**
Line 1-3, FG:	Percentage (expressed as decimal) of mid-summer precipitation arising from the Gulf component in the Great Basin.***
Line 1-4, ICC:	Continental Carves in the Great Basin.****
Line 1-5, AST:	Site number.
Line 2-1, ICAN:	Rain can number.
Line 2-2, LATA:	Latitude in degrees.
Line 2-3, LATB:	Latitude in minutes.
Line 2-4, LONA:	Longitude in degrees.
Line 2-5, LONB:	Longitude in minutes.
Line 2-6, LEV:	Site elevation in feet.
Line 3, PM(I):	Long-term monthly precipitation record.
Line 4-1, KSD:	Variations of standard deviation.
Line 4-2, KTK:	Variations of water storage tank size.
Line 4-3, LWN:	Kinds of grazing livestock and wildlife.
Line 5-1, ANM(N):	Name of grazing livestock and wildlife.
Line 5-2, NAN(N):	Numbers of grazing livestock and wildlife.
LIne 5-3, NWC(N):	Gallons of water demand per day.
Line 5-4, MSU(N):	Month of starting use.
Line 5-5, NMU(N):	Number of months used.

*Line 6 is repeat of line 5.
**(Reference: BLM 9173, Illustration 27)
***(Reference: BLM 9173, Illustration 28)
****(Reference: BLM 9173, Illustration 29)

Appendix 6

Decision Making by AQUATANK Computer Program

```
*FRN AQQW#111DT"03";09
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS)
 FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE
RASD*, AND 3)TWO RASD.
  *WHERE; RASD is defined as reduced annual standard deviation by using
 deficiency index.
1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
2)ONE RSD(LTN-RASD),RASD(IN %); 6.5406
3)TWO RSD(LTN-2RASD),2RASD(IN %);13.0812
THE 36 STABLE MONTHLY WATER BALANCE ARE;
              162592.   196521.    232731.   294181.    282743.   256255.
   201971.   149383.    94501.     51403.    93223.    129277.
              162592.   196521.    232731.   294181.    282743.   256255.
   201971.   149383.    94501.     51403.    93223.    129277.
              162592.   196521.    232731.   294181.    282743.   256255.
   201971.   149383.    94501.     51403.    93223.    129277.
FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                     PARAMETERS
 PRECIPITATION       ANNUAL WD  CATCHMENT       TANK
 CASE NAME  IN./YR.       GAL.     SQ.FT.        GAL.
   1    LTN   9.5854    594000      99403     294181
   2   1RSD   9.4624    594000     100695     294181
   3   2RSD   9.3410    594000     102004     294181
   4   3RSD   9.2211    594000     103330     294181
   5   4RSD   9.1028    594000     104673     294181
SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.17, CASE 2)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=1
WHAT PREC. CASE? LTN, 1RSD, OR 2RSD,...(IF LTN=1, 1RSD=2, --- 5RSD=5.,)
=1
```

```
AT THE RECOMMENDED CASE #;  2, PREC.=  9.4624 INCHES.  CATCHMENT=   100
695 SQ.FT.
THE PREC. CHANGE TO;  9.5854
MONTHLY WB;   163083.   197512.   234252.   296559.   286201.   260596.
   206835.   154793.   100425.   57996.   100418.   136999.
MONTHLY WB;   170805.   205235.   241974.   304281.   293923.   268319.
   214557.   162515.   108148.   65718.   108140.   144721.
MONTHLY WB;   178528.   212957.   249696.   312003.   301645.   276041.
   222280.   170237.   115870.   73441.   115862.   152444.
DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;    99402
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=1
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=2
 CHANGE FOR CATTLE;
HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
    E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200
15  5 10
= 100 15  5 10
 CHANGE FOR WILDLIFE;
HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
    E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200
15  5 10
=   5 15  1 12
MONTHLY WB;   164842.   201021.   239481.   303181.   338993.   359755.
   352721.   347383.   339751.   343903.   387973.   426277.
MONTHLY WB;   461842.   498021.   536481.   600181.   635993.   656755.
   649721.   644383.   636751.   640903.   684973.   723277.
MONTHLY WB;   758842.   795021.   833481.   897181.   932993.   953755.
   946721.   941383.   933751.   937903.   981973.  1020277.
DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;    50347
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=1
```

```
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=3
CHANGE CATCHMENT SIZE;
HOW MANY SQ.FT.? E.G., 55000 ENTER    55000
=99@0@00
MONTHLY WB;   158575.   188423.   220309.   274755.   254494.   220782.
   162227.   105188.    46098.    -2459.    34440.    66187.
MONTHLY WB;    95485.   125333.   157219.   211665.   191404.   157692.
    99137.    42098.   -16992.   -65549.   -28650.     3097.
MONTHLY WB;    32396.    62244.    94130.   148575.   128315.    94603.
    36047.   -20992.   -80082.  -128639.   -91739.   -59992.
DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
ANNUAL WATER DEMAND(GAL.) CHANGE TO;   530910
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=1
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=4
CHANGE TANK VOLUME;
HOW MANY GALLONS? E.G., 88000 ENTER    88000
=220000
MONTHLY WB;   162592.   196521.   232731.   294181.   282743.   256255.
   201971.   149383.    94501.    51403.    93223.   129277.
MONTHLY WB;   162592.   196521.   232731.   294181.   282743.   256255.
   201971.   149383.    94501.    51403.    93223.   129277.
MONTHLY WB;   162592.   196521.   232731.   294181.   282743.   256255.
   201971.   149383.    94501.    51403.    93223.   129277.
WATER WILL SPILL OUT IN; MONTH #= 3 WATER BAL.(GAL.)=  232731. WATER WA
STE=    12731
WATER WILL SPILL OUT IN; MONTH #= 4 WATER BAL.(GAL.)=  294181. WATER WA
STE=    61450
TOTAL WASTE(GAL./YEAR)=    74181
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=0
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*FRN AQQW#112DT"03";09
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS)
 FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE
RASD*, AND 3)TWO RASD.
  *WHERE; RASD is defined as reduced annual standard deviation by using
 deficiency index.
1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
2)ONE RSD(LTN-RASD),RASD(IN %); 6.7343
3)TWO RSD(LTN-2RASD),2RASD(IN %);13.4687
THE 36 STABLE MONTHLY WATER BALANCE ARE;
             203108.   256834.   313779.   379762.   347455.   295222.
   229365.   162084.    94500.    48990.    97002.   149277.
             203108.   256834.   313779.   379762.   347455.   295222.
   229365.   162084.    94500.    48990.    97002.   149277.
             203108.   256834.   313779.   379762.   347455.   295222.
   229365.   162084.    94500.    48990.    97002.   149277.
FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                        PARAMETERS
 PRECIPITATION          ANNUAL WD  CATCHMENT       TANK
 CASE NAME  IN./YR.          GAL.     SQ.FT.       GAL.
   1   LTN   8.6686       594000     109916     379762
   2  1RSD   8.5571       594000     111348     379762
   3  2RSD   8.4470       594000     112799     379762
   4  3RSD   8.3383       594000     114269     379762
   5  4RSD   8.2311       594000     115758     379762
SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.17, CASE 2)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
    1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=5
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*FRN AQQW#121DT"03";09
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS)
 FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE
RASD*, AND 3)TWO RASD.
  *WHERE; RASD is defined as reduced annual standard deviation by using
 deficiency index.
1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
2)ONE RSD(LTN-RASD),RASD(IN %); 5.8809
3)TWO RSD(LTN-2RASD),2RASD(IN %);11.7618
THE 36 STABLE MONTHLY WATER BALANCE ARE;
             210575.   251672.   281323.   316473.   294114.   269816.
   220697.   159176.   94500.    44654.    93491.   155833.
             210575.   251672.   281323.   316473.   294114.   269816.
   220697.   159176.   94500.    44654.    93491.   155833.
             210575.   251672.   281323.   316473.   294114.   269816.
   220697.   159176.   94500.    44654.    93491.   155833.
FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                          PARAMETERS
 PRECIPITATION            ANNUAL WD  CATCHMENT       TANK
 CASE NAME  IN./YR.          GAL.     SQ.FT.         GAL.
   1   LTN  10.7919        594000     88291       316473
   2  1RSD  10.6697        594000     89301       316473
   3  2RSD  10.5490        594000     90323       316473
   4  3RSD  10.4296        594000     91357       316473
   5  4RSD  10.3116        594000     92403       316473
SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.16, CASE 2)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=1
WHAT PREC. CASE? LTN, 1RSD, OR 2RSD,...(IF LTN=1, 1RSD=2, --- 5RSD=5.,)
=1
```

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AT THE RECOMMENDED CASE #;  2, PREC.= 10.6697 INCHES.  CATCHMENT=    89
301 SQ.FT.
THE PREC. CHANGE TO; 10.7919
MONTHLY WB;    211253.   252872.   282914.   318518.   296984.   273490.
   224890.   163747.    99413.    50078.    99525.   162632.
MONTHLY WB;    218052.   259671.   289714.   325317.   303784.   280289.
   231690.   170546.   106212.    56877.   106325.   169432.
MONTHLY WB;    224852.   266470.   296513.   332117.   310583.   287089.
   238489.   177346.   113011.    63676.   113124.   176231.
DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;    88290
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=1
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=2
 CHANGE FOR CATTLE;
HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
    E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200
15  5 10
= 400 15  5 10
 CHANGE FOR WILDLIFE;
HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
    E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200
15  5 10
=  20 15  1 12
MONTHLY WB;    206075.   242672.   267823.   298473.   181614.    62816.
   -80803.  -236824.  -396000.  -540346.  -496009.  -438167.
MONTHLY WB;   -387925.  -351328.  -326177.  -295527.  -412386.  -531184.
  -674803.  -830824.  -990000. -1134346. -1090009. -1032167.
MONTHLY WB;   -981925.  -945328.  -920177.  -889527. -1006386. -1125184.
 -1268803. -1424824. -1584000. -1728346. -1684009. -1626167.
DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;   178602
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=1
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*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=3
CHANGE CATCHMENT SIZE;
HOW MANY SQ.FT.? E.G., 55000 ENTER    55000
=92000
MONTHLY WB;   212365.   254840.   285524.   321873.   301693.   279517.
   231769.   171246.   107471.    58974.   109424.   173786.
MONTHLY WB;   230318.   272793.   303477.   339825.   319646.   297470.
   249722.   189198.   125424.    76927.   127377.   191739.
MONTHLY WB;   248271.   290746.   321430.   357778.   337599.   315423.
   267675.   207151.   143377.    94880.   145330.   209692.
DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
ANNUAL WATER DEMAND(GAL.) CHANGE TO;   611952
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=1
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=4
CHANGE TANK VOLUME;
HOW MANY GALLONS? E.G., 88000 ENTER    88000
=300000
MONTHLY WB;   210575.   251672.   281323.   316473.   294114.   269816.
   220697.   159176.    94500.    44654.    93491.   155833.
MONTHLY WB;   210575.   251672.   281323.   316473.   294114.   269816.
   220697.   159176.    94500.    44654.    93491.   155833.
MONTHLY WB;   210575.   251672.   281323.   316473.   294114.   269816.
   220697.   159176.    94500.    44654.    93491.   155833.
WATER WILL SPILL OUT IN; MONTH #= 4 WATER BAL.(GAL.)=  316473. WATER WA
STE=    16473
TOTAL WASTE(GAL./YEAR)=    16473
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=0

*PERM 09
OUTPUT FILE NAME? POOL/A290/121OUT
*OLD POOL/A290/121OUT
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*FRN AQUA2#131DT'03";09
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS)
 FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE
RASD*, AND 3)TWO RASD.
  *WHERE; RASD is defined as reduced annual standard deviation by using
 deficiency index.
1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
2)ONE RSD(LTN-RASD),RASD(IN %);21.6029
3)TWO RSD(LTN-2RASD),2RASD(IN %);43.2058
THE 36 STABLE MONTHLY WATER BALANCE ARE;
          185327.   232685.   283466.   340987.   307555.   253130.
  202049.   152812.    94500.    47233.    89031.   137836.
          185327.   232685.   283466.   340987.   307555.   253130.
  202049.   152812.    94500.    47233.    89031.   137836.
          185327.   232685.   283466.   340987.   307555.   253130.
  202049.   152812.    94500.    47233.    89031.   137836.
FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                      PARAMETERS
 PRECIPITATION        ANNUAL WD  CATCHMENT      TANK
 CASE NAME  IN./YR.        GAL.      SQ.FT.      GAL.
   1   LTN  8.4268     594000     113071     340986
   2  1RSD  7.9395     594000     120009     340986
   3  2RSD  7.4805     594000     127374     340986
   4  3RSD  7.0480     594000     135191     340986
   5  4RSD  6.6404     594000     143487     340986
SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.23, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
    1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=5
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*FRN AQQW#132DT"03";09
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS)
 FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE
RASD*, AND 3)TWO RASD.
  *WHERE; RASD is defined as reduced annual standard deviation by usins
 deficiency index.
1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
2)ONE RSD(LTN-RASD),RASD(IN %);35.6012
3)TWO RSD(LTN-2RASD),2RASD(IN %);71.2024
THE 36 STABLE MONTHLY WATER BALANCE ARE;
              222380.   279284.   321690.   348491.   290542.   231083.
   190338.   150455.    94500.    33677.    76295.   150962.
              222380.   279284.   321690.   348491.   290542.   231083.
   190338.   150455.    94500.    33677.    76295.   150962.
              222380.   279283.   321690.   348491.   290542.   231083.
   190338.   150455.    94500.    33677.    76295.   150962.
FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                     PARAMETERS
 PRECIPITATION       ANNUAL WD  CATCHMENT       TANK
 CASE NAME  IN./YR.       GAL.     SQ.FT.        GAL.
   1   LTN   5.4832     594000     173771     348490
   2  1RSD   4.8771     594000     195369     348490
   3  2RSD   4.3379     594000     219652     348490
   4  3RSD   3.8583     594000     246954     348490
   5  4RSD   3.4318     594000     277648     348490
SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.29, CASE 4)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=1
WHAT PREC. CASE? LTN, 1RSD, OR 2RSD,...(IF LTN=1, 1RSD=2, --- 5RSD=5.,)
=2
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AT THE RECOMMENDED CASE #;  4, PREC.=  3.8583 INCHES.  CATCHMENT=   246
954 SQ.FT.
THE PREC. CHANGE TO;  4.8771
MONTHLY WB;   242425.   315541.   370332.   405398.   357100.   306893.
   280341.   254879.   209102.   157170.   212230.   307799.
MONTHLY WB;   399262.   472378.   527169.   562235.   513937.   463730.
   437178.   411716.   365939.   314008.   369067.   464636.
MONTHLY WB;   556099.   629216.   684007.   719072.   670774.   620567.
   594015.   568553.   522776.   470845.   525904.   621473.
DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;   195369
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=1
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=2
 CHANGE FOR CATTLE;
HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
    E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200
15  5 10
= 100 15  5 10
 CHANGE FOR WILDLIFE;
HOW MANY HEAD? GAL./DAY? STARTING MONTH? ENDING MONTH?(USE I4,3I3)
    E.G., 200 HEAD 15GPD STARTING MAY ENDING OCTOBER  SHOULD ENTER 200
15  5 10
=    5 15  1 12
MONTHLY WB;   224630.   283784.   328440.   357491.   346792.   334583.
   341088.   348455.   339750.   326177.   371045.   447962.
MONTHLY WB;   521630.   580784.   625440.   654491.   643792.   631583.
   638088.   645455.   636750.   623177.   668045.   744962.
MONTHLY WB;   818630.   877783.   922440.   951491.   940792.   928583.
   935088.   942455.   933750.   920177.   965045.  1041962.
DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
E.G., CATCHMENT SIZE(SQ.FT.) CAN BE;   123477
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=1
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*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=3
CHANGE CATCHMENT SIZE;
HOW MANY SQ.FT.? E.G., 55000 ENTER    55000
=110000
MONTHLY WB;   180278.   203129.   219522.   228964.   150745.    71853.
     1297.   -68875.  -146206.  -225705.  -209217.  -178454.
MONTHLY WB;  -149138.  -126288.  -109894.  -100452.  -178671.  -257563.
  -328119.  -398291.  -475622.  -555121.  -538634.  -507871.
MONTHLY WB;  -478555.  -455704.  -439311.  -429868.  -508087.  -586979.
  -657535.  -727707.  -805038.  -884538.  -868050.  -837287.
DUE TO THIS CHANGE, OTHER ADJUSTMENTS CAN BE DONE;
ANNUAL WATER DEMAND(GAL.) CHANGE TO;   264583
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=1
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=4
CHANGE TANK VOLUME;
HOW MANY GALLONS? E.G., 88000 ENTER    88000
=230000
MONTHLY WB;   222380.   279284.   321690.   348491.   290542.   231083.
   190338.   150455.    94500.    33677.    76295.   150962.
MONTHLY WB;   222380.   279284.   321690.   348491.   290542.   231083.
   190338.   150455.    94500.    33677.    76295.   150962.
MONTHLY WB;   222380.   279283.   321690.   348491.   290542.   231083.
   190338.   150455.    94500.    33677.    76295.   150962.
WATER WILL SPILL OUT IN; MONTH #= 2 WATER BAL.(GAL.)=  279284. WATER WA
STE=    49283
WATER WILL SPILL OUT IN; MONTH #= 3 WATER BAL.(GAL.)=  321690. WATER WA
STE=    42406
WATER WILL SPILL OUT IN; MONTH #= 4 WATER BAL.(GAL.)=  348491. WATER WA
STE=    26801
TOTAL WASTE(GAL./YEAR)=   118490
DO YOU WANT TO RERUN MORE PARAMETERS?
  IF NO=0, YES=1
=0

*PERM 09
OUTPUT FILE NAME? POOL/A290/132OUT
*OLD POOL/A290/132OUT
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*FRN AQQW#141DT"03";09
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS)
 FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE
RASD*, AND 3)TWO RASD.
  *WHERE; RASD is defined as reduced annual standard deviation by using
 deficiency index.
1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
2)ONE RSD(LTN-RASD),RASD(IN %);23.5564
3)TWO RSD(LTN-2RASD),2RASD(IN %);47.1128
THE 36 STABLE MONTHLY WATER BALANCE ARE;
              157734.   196169.   243341.   300618.   257847.   197686.
   162790.   141626.    94501.    47648.    84977.   122097.
              157734.   196169.   243341.   300618.   257847.   197686.
   162790.   141626.    94501.    47648.    84977.   122097.
              157734.   196169.   243341.   300618.   257847.   197686.
   162790.   141626.    94501.    47648.    84977.   122097.
FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                     PARAMETERS
 PRECIPITATION       ANNUAL WD  CATCHMENT       TANK
 CASE NAME  IN./YR.       GAL.     SQ.FT.       GAL.
   1   LTN   7.7884     594000     122339     300618
   2  1RSD   7.2764     594000     130947     300618
   3  2RSD   6.7981     594000     140161     300618
   4  3RSD   6.3512     594000     150023     300618
   5  4RSD   5.9336     594000     160580     300618
SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.24, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=5
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*FRN-A11@@QQW#142DT"03";09
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS)
 FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE
RASD*, AND 3)TWO RASD.
  *WHERE; RASD is defined as reduced annual standard deviation by using
 deficiency index.
1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
2)ONE RSD(LTN-RASD),RASD(IN %);18.6118
3)TWO RSD(LTN-2RASD),2RASD(IN %);37.2236
THE 36 STABLE MONTHLY WATER BALANCE ARE;
              147395.   182164.   228234.   288374.   249998.   191946.
   158952.   140060.    94500.    48943.    85533.   117192.
              147395.   182164.   228234.   288374.   249998.   191946.
   158952.   140060.    94500.    48943.    85533.   117192.
              147395.   182164.   228234.   288374.   249998.   191946.
   158952.   140060.    94501.    48943.    85533.   117192.
FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                     PARAMETERS
 PRECIPITATION       ANNUAL WD  CATCHMENT      TANK
 CASE NAME  IN./YR.       GAL.     SQ.FT.      GAL.
   1   LTN  10.0584     593999      94729    288374
   2  1RSD   9.5548     593999      99721    288374
   3  2RSD   9.0765     593999     104976    288374
   4  3RSD   8.6221     593999     110508    288374
   5  4RSD   8.1905     593999     116332    288374
SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.22, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=5
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*FRN AQQW#151DT"03";09
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS)
 FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE
RASD*, AND 3)TWO RASD.
  *WHERE; RASD is defined as reduced annual standard deviation by using
 deficiency index.
1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
2)ONE RSD(LTN-RASD),RASD(IN %);21.1830
3)TWO RSD(LTN-2RASD),2RASD(IN %);42.3660
THE 36 STABLE MONTHLY WATER BALANCE ARE;
              195956.   252719.   311730.   359499.   303126.   230272.
   187259.   151962.    94500.    48510.    89810.   141982.
              195956.   252719.   311730.   359499.   303126.   230272.
   187259.   151962.    94500.    48510.    89810.   141982.
              195956.   252719.   311730.   359499.   303126.   230272.
   187259.   151962.    94500.    48510.    89810.   141982.
FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                     PARAMETERS
 PRECIPITATION       ANNUAL WD  CATCHMENT        TANK
 CASE NAME  IN./YR.        GAL.      SQ.FT.       GAL.
   1   LTN  12.7374     594000       74804     359499
   2  1RSD  11.9430     594000       79779     359499
   3  2RSD  11.1982     594000       85085     359499
   4  3RSD  10.4998     594000       90745     359499
   5  4RSD   9.8450     594000       96780     359499
SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.23, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=5
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*FRN AQUA2#152DT'03';09
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS)
 FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE
RASD*, AND 3)TWO RASD.
  *WHERE; RASD is defined as reduced annual standard deviation by using
 deficiency index.
1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
2)ONE RSD(LTN-RASD),RASD(IN %);18.3048
3)TWO RSD(LTN-2RASD),2RASD(IN %);36.6097
THE 36 STABLE MONTHLY WATER BALANCE ARE;
              197915.   254932.   315172.   364879.   310792.   238993.
   192946.   153943.    94500.    50715.    92850.   144482.
              197915.   254932.   315172.   364879.   310792.   238993.
   192946.   153943.    94500.    50715.    92850.   144482.
              197915.   254932.   315172.   364879.   310792.   238993.
   192946.   153943.    94500.    50715.    92850.   144482.
FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                       PARAMETERS
 PRECIPITATION         ANNUAL WD  CATCHMENT       TANK
 CASE NAME  IN./YR.       GAL.      SQ.FT.        GAL.
   1   LTN  14.5283      594000      65583      364878
   2  1RSD  13.7702      594000      69193      364878
   3  2RSD  13.0516      594000      73003      364878
   4  3RSD  12.3705      594000      77022      364878
   5  4RSD  11.7250      594000      81263      364878
SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.22, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=5
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```
*FRN AQUA2#15@61DT#@"03";09
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS)
 FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE
RASD*, AND 3)TWO RASD.
  *WHERE; RASD is defined as reduced annual standard deviation by using
 deficiency index.
1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
2)ONE RSD(LTN-RASD),RASD(IN %);11.9974
3)TWO RSD(LTN-2RASD),2RASD(IN %);23.9947
THE 36 STABLE MONTHLY WATER BALANCE ARE;
              195952.   244368.   297975.   360999.   332754.   281388.
   220593.   159164.    94501.    50672.    96111.   146711.
              195952.   244368.   297975.   360999.   332754.   281388.
   220593.   159164.    94501.    50672.    96111.   146711.
              195952.   244368.   297975.   360999.   332754.   281388.
   220593.   159164.    94501.    50672.    96111.   146711.
FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                        PARAMETERS
 PRECIPITATION          ANNUAL WD  CATCHMENT       TANK
 CASE NAME  IN./YR.        GAL.      SQ.FT.        GAL.
   1   LTN  10.2420      593999       93030      360999
   2  1RSD   9.9702      593999       95565      360999
   3  2RSD   9.7057      593999       98170      360999
   4  3RSD   9.4482      593999      100846      360999
   5  4RSD   9.1975      593999      103594      360999
SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.19, CASE 2)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=5
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*FRN AQUA2#162DT"03";09
THIS PROGRAM CALCULATES CATCHMENT SIZE(SQ. FT.) AND TANK VOLUME(GALLONS)
 FOR ONE MONTH CARRY OVER WATER DEMAND.
THREE(3) PRECIPITATION INPUTS ARE USED;  1)LONG TERM NORMAL(LTN), 2)ONE
RASD*, AND 3)TWO RASD.
  *WHERE; RASD is defined as reduced annual standard deviation by using
 deficiency index.
1)LTN; USE EFFECTIVE RAINFALL BY HOUGHTON'S METHOD
2)ONE RSD(LTN-RASD),RASD(IN %);18.3450
3)TWO RSD(LTN-2RASD),2RASD(IN %);36.6900
THE 36 STABLE MONTHLY WATER BALANCE ARE;
              168977.   209782.   257155.   318520.   291737.   242320.
   195390.   150072.    94501.    49619.    90023.   130772.
              168977.   209782.   257155.   318520.   291737.   242320.
   195390.   150072.    94501.    49619.    90023.   130772.
              168977.   209782.   257155.   318520.   291737.   242320.
   195390.   150072.    94501.    49619.    90023.   130772.
FOR 5 PRECIPITATION INPUTS, 4 MAJOR PARAMETERS ARE SUMMARIZIED AS;
                     PARAMETERS
 PRECIPITATION       ANNUAL WD  CATCHMENT       TANK
 CASE NAME   IN./YR.      GAL.     SQ.FT.       GAL.
   1   LTN   8.6091      594000     110677     318520
   2  1RSD   8.2091      594000     116070     318520
   3  2RSD   7.8276      594000     121726     318520
   4  3RSD   7.4639      594000     127658     318520
   5  4RSD   7.1171      594000     133878     318520
SINCE ANNUAL DIFICIENCY INDEX(ADI)= 0.22, CASE 3)RSD IS RECOMMENDED.
*** USER MAY REEVALUATE TNE SYSTEM BY CHANGING;
     1)PRECIPITATION(NPR), 2)ANNUAL WATER DEMAND(NAD), 3)CATCHMENT SIZE
(NCS), 4)TANK VOLUME(NTV).
USER MAY ALSO SELECT NOT TO RERUN; 5)END.
ENTER CODE NUMBER FOR;
  1=NPR, 2=NAD, 3=NCS, 4=NTV, 5=END.
=5
```

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Nevada Watershed Studies, 1963-1980
Nevada State Bureau of Land Management, US Dept. of Interior

ERRATA SHEET

Page ii Appendix 2	Appendix 2 is BLM Manual 9174.3 and illustrations in Section 4.2.1.1. to 4.2.1.5. refer to this manual.
Page 1-1 Table A, B, C, and D	Table A, B, C, and D are tabulated in pages 5-38 to 5-309.
Page 3-1 Forage Production Index	Forage Production Index (FPI).
Page 4-17 Equation 4-2	$P_m = \sum_{i=1}^{n} Pi/n$ --(4-2)
Page 4-18 Equation 4-4	$Pm = (\sum_{i=1}^{n} (Pi/Ni))\frac{Nm}{n}$ --(4-4)
Page 4-23 Equation 4-15	$KD = \frac{(\sum_{i=1}^{n} Pi)^2 + (\sum_{i=1}^{n} Gi)^2 + (\sum_{i=1}^{n} Ci)^2}{(\sum_{i=1}^{n} Si)^2}$ --------------------(4-15)
Page 4-30 Equation 4-27	$EAP = \sum_{i=1}^{12} NWSi$ --(4-27)
Page 4-32 Equation 4-29	$SWYi = \sum_{i=1}^{n} WYi$ --(4-29)
Page 4-32 Equation for SWY_7	$SWY_7 = \sum_{i=1}^{7} (37{,}815 + 38{,}430 = --- + 40{,}216)$
Page 4-33 Equation 4-32	$SWi = WYmax + \sum_{i=1}^{n} WYi$ --(4-32)
Page 5-31 Equation 5-1	$CMP = \sum_{i=1}^{n} (((Pi/M) - 1.0)100\%)$ ----------------------------(5-1)

Two Missing Tables;

Table A-2-1 should follow page 5-39 on page 5-39a.

Table B-2-1, can #1 should follow page 5-82 on page 5-82a.

The Tables are as follows:

TABLE A-2-1; SUMMARY OF MEAN MONTHLY AND ANNUAL PRECIPITATION RECORD, CROWLEY CREEK WATERSHED, WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

CAN NO.	ELEVATION (FT.)	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
		MONTH (INCHES)												
1	4520	1.06	0.57	0.66	0.76	0.76	1.41	0.39	0.83	0.64	0.75	1.17	0.86	9.88
2	4840	1.12	0.65	0.75	0.77	0.79	1.37	0.46	0.79	0.67	0.72	1.20	0.97	10.27
3	5100	1.11	0.51	0.74	0.76	0.83	1.58	0.48	0.82	0.60	0.78	1.32	1.05	10.59
4	5160	1.14	0.52	0.77	0.79	0.84	1.63	0.51	0.83	0.62	0.84	1.37	1.09	10.95
5	5400	1.19	0.54	0.81	0.81	0.89	1.69	0.52	0.86	0.64	0.89	1.45	1.15	11.44
6	5520	1.24	0.72	0.83	0.88	0.87	1.53	0.50	0.87	0.73	0.85	1.39	1.08	11.50
7	6000	1.31	0.76	0.88	0.92	0.92	1.59	0.52	0.89	0.78	0.89	1.46	1.14	12.04
8	6440	1.34	0.78	0.91	0.93	0.94	1.63	0.54	0.93	0.80	0.91	1.50	1.20	12.42
9	6840	1.49	0.86	1.02	1.05	1.07	1.89	0.61	1.07	0.90	1.03	1.72	1.40	14.12
10	6900	1.53	0.88	1.05	1.08	1.10	1.94	0.63	1.08	0.92	1.07	1.78	1.46	14.50
11	6740	1.48	0.87	1.02	1.05	1.07	1.88	0.61	1.07	0.90	1.04	1.73	1.42	14.16
12	6990	1.47	0.69	1.02	1.03	1.11	2.10	0.66	1.09	0.81	1.11	1.84	1.48	14.40
13	4960	1.28	0.71	0.84	0.87	0.87	1.55	0.52	0.87	0.72	0.85	1.37	1.08	11.54
14	5490	1.28	0.58	0.86	0.88	0.91	1.78	0.55	0.89	0.67	0.95	1.52	1.20	12.06
15	4760	1.18	0.67	0.80	0.81	0.81	1.44	0.50	0.84	0.69	0.80	1.28	1.04	10.87
16	6440	1.46	0.84	0.98	0.93	0.95	1.71	0.66	1.06	0.89	0.93	1.57	1.34	13.32
17	5680	1.38	0.63	0.92	0.86	0.94	1.87	0.67	1.05	0.76	0.98	1.60	1.38	13.06
MEAN;CANS 1-17		1.30	0.69	0.87	0.89	0.92	1.68	0.55	0.93	0.75	0.91	1.49	1.20	12.18

TABLE B-2-1; PRECIPITATION RECORD OF WINNEMUCCA DISTRICT, NEVADA WATERSHED STUDIES.

HYDRO-AREA; CROWLEY CREEK

CAN NO.	ELEVATION (FT.)	YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL (IN.)
			MONTH (INCHES)												
1	4520														
		1962	0.	0.	0.	0.	0.	0.	0.	0.13	0.04	1.05	0.57	0.61	2.41
		1963	0.98	0.49	0.82	1.80	1.14	2.29	0.	0.	0.65	0.82	1.96	0.33	11.28
		1964	0.37	0.	0.56	0.75	0.56	3.18	0.37	0.75	0.56	0.37	1.12	3.74	12.34
		1965	0.62	0.	0.31	0.15	0.31	1.86	0.31	2.48	0.62	0.15	1.55	0.31	8.67
		1966	0.56	0.42	0.28	0.42	0.14	0.	0.14	0.28	0.56	0.	2.09	1.11	5.98
		1967	2.69	0.	0.81	2.42	1.08	2.96	0.54	0.27	0.27	0.54	0.81	0.	12.37
		1968	0.13	1.47	0.27	0.93	0.80	0.67	0.13	1.47	0.13	0.27	1.47	0.53	8.26
		1969	2.67	0.64	0.37	0.55	0.	1.11	0.37	0.	0.28	0.64	0.28	1.01	7.92
		1970	2.35	0.22	0.56	0.45	1.57	2.91	0.11	0.22	0.11	0.45	2.01	0.89	11.85
		1971	0.77	0.31	2.47	0.46	2.62	2.32	0.15	0.31	1.85	0.46	1.24	1.39	14.36
		1972	1.23	0.62	0.49	0.12	0.12	2.21	0.	0.25	0.98	1.23	1.85	0.62	9.72
		1973	0.85	0.24	0.48	1.94	0.85	0.12	0.24	1.21	0.85	1.09	2.42	1.09	11.38
		1974	0.61	0.46	1.38	0.46	0.	0.	1.69	0.61	0.	1.53	0.61	1.07	8.43
		1975	1.02	0.61	0.41	0.20	0.	1.63	0.81	1.02	0.20	4.68	0.41	0.61	11.59
		1976	0.48	0.36	0.24	0.12	0.60	1.92	1.08	1.44	1.32	0.	0.48	0.	8.02
		1977	0.41	0.27	0.14	0.41	2.17	1.49	0.27	2.45	0.54	0.	1.49	1.63	11.28
		1978	1.28	1.16	1.03	0.90	0.26	0.13	0.51	0.13	2.05	0.	0.51	0.64	8.60
		1979	1.24	1.05	0.86	0.67	0.29	0.48	0.19	1.91	0.48	0.67	0.77	0.38	9.00
		1980	0.82	2.00	0.45	1.00	1.18	0.18	0.09	0.	0.73	0.27	0.54	0.45	7.72
		MEAN	1.06	0.57	0.66	0.76	0.76	1.41	0.39	0.83	0.64	0.75	1.17	0.86	9.88

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